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<110> Ruben et al.
<120> 26 Human secreted proteins
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<150> PCT/US00/15187
<151> 2000-06-02
<150> 60/137,725
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<212> PRT
<213> Homo sapiens
<220>
<221> Site
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<213> Artificial Sequence
<221> Primer Bind
<223> Synthetic sequence with 4 tandem copies of the GAS binding site found
in the IRF1 promoter (Rothman et al., Immunity 1:457-468 (1994)), 18
nucleotides complementary to the SV40 early promoter, and a Xho I
restriction site.
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III restriction site.
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<210> 5
<211> 271
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<223> Synthetic promoter for use in biological assays; includes GAS binding
sites found in the IRF1 promoter (Rothman et al., Immunity 1:457-468
(1994)).
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                                                                         120
qcccctaact ccgcccagtt ccgcccattc tccgccccat ggctgactaa ttttttttat
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ttatgcagag gccgaggccg cctcggcctc tgagctattc cagaagtagt gaggaggctt
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sequence (Sakamoto et al., Oncogene 6:867-871 (1991)); includes a Xho I
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sequence (Sakamoto et al., Oncogene 6:867-871 (1991)); includes a Hind III
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<212> DNA
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<223> Synthetic primer with 4 tandem copies of the NF-KB binding site
(GGGGACTTTCCC), 18 nucleotides complementary to the 5' end of the SV40
early promoter sequence, and a XhoI restriction site.
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ccatctcaat tag
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<210> 10
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<212> DNA
<213> Artificial Sequence
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<221> Protein Bind
<223> Synthetic promoter for use in biological assays; includes NF-KB
binding sites.
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cagttccgcc cattctccgc cccatggctg actaattttt tttatttatg cagaggccga
                                                                        180
ggccgcctcg gcctctgagc tattccagaa gtagtgagga ggcttttttg gaggcctagg
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<213> Homo sapiens

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		aacattcaga				240
		atccttacct				300
		ggaatgtgct				360
		ttcctcatct				420
		tgaccagcaa				480
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		gcgagtcctg				960
		gtaatgtcac				1020
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		gctttgacaa				1140
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		tagaggtcca				1260
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		taagagaaca				1860
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					tcccaacccc	420
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Arg Trp His Pro Tyr Leu Glu Pro Tyr Gly Leu Val Tyr Cys Val Asn 50 55 60

Cys Ile Cys Ser Glu Asn Gly Asn Val Leu Cys Ser Arg Val Arg Cys 65 70 75 80

Pro Asn Val His Cys Leu Ser Pro Val His Ile Pro His Leu Cys Cys
85 90 95

Pro Arg Cys Pro Glu Asp Ser Leu Pro Pro Val Asn Asn Lys Val Thr

Ser Lys Ser Cys Glu Tyr Asn Gly Thr Thr Tyr Gln His Gly Glu Leu

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Pro	Lys	Leu	Thr	Cys 165	Ala	Phe	Pro	Val	Ser 170	Val	Pro	Asp	Ser	Cys 175	Cys
Arg	Val	Cys	Arg 180	Gly	qaA	Gly	Glu	Leu 185	Ser	Trp	Glu	His	Ser 190	Asp	Gly
Asp	Ile	Phe 195	Arg	Gln	Pro	Ala	Asn 200	Arg	Glu	Ala	Arg	His 205	Ser	Tyr	His
Arg	Ser 210	His	Tyr	Asp	Pro	Pro 215	Pro	Ser	Arg	Gln	Ala 220	Gly	Gly	Leu	Ser
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Gln	Ala	Ser	Gly	Thr 245	Ile	Val	Gln	Ile	Val 250	Ile	Asn	Asn	Lys	His 255	Lys
His	Gly	Gln	Val 260		Val	Ser	Asn	Gly 265	Lys	Thr	Tyr	Ser	His 270	Gly	Glu
Ser	Trp	His 275		Asn	Leu	Arg	Ala 280		Gly	Ile	Val	Glu 285	Cys	Val	Leu
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Pro	370		l Glu	ı Val	l His	375		Thi	: Ile	e Arg	380 Lys		Ile	Leu	Gln
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Hi	s Phe	е Гу	s Lei	ı Va. 40!		c Ar	g Thi	c Thi	r Leu 410		Glr	n Trp	Lys	11e 415	Phe
Th:	r Gl	u Gl	y Gla		a Glı	n Il	e Sei	r Gl:		t Cys	s Sei	s Ser	Arg	Val	. Cys

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Glu Lys Gly His Cys 450

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<213> Homo sapiens

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Leu Gln Glu Gln Ala Pro Met Ala Gly Ala Leu Asn Arg Lys Glu Ser 35 40 45

Phe Leu Leu Ser Leu His Asn Arg Leu Arg Ser Trp Val Gln Pro 50 55 60

Pro Ala Ala Asp Met Arg Arg Leu Asp Trp Ser Asp Ser Leu Ala Gln 65 70 75 80

Leu Ala Gln Ala Arg Ala Ala Leu Cys Gly Ile Pro Thr Pro Ser Leu 85 90 95

Ala Ser Gly Leu Trp Arg Thr Leu Gln Val Gly Trp Asn Met Gln Leu 100 105 110

Leu Pro Ala Gly Leu Ala Ser Phe Val Glu Val Val Ser Leu Trp Phe 115 120 125

Ala Glu Gly Gln Arg Tyr Ser His Ala Ala Gly Glu Cys Ala Arg Asn 130 135 140

Ala Thr Cys Thr His Tyr Thr Gln Leu Val Trp Ala Thr Ser Ser Gln 145 150 155 160

Leu Gly Cys Gly Arg His Leu Cys Ser Ala Gly Gln Ala Ala Ile Glu 165 170 175

Ala Phe Val Cys Ala Tyr Ser Pro Gly Gly Asn Trp Glu Val Asn Gly
180 185 190

Lys Thr Ile Ile Pro Tyr Lys Lys Gly Ala Trp Cys Ser Leu Cys Thr 195 200 205

Ala Ser Val Ser Gly Cys Phe Lys Ala Trp Asp His Ala Gly Gly Leu 210 215 220

Cys Glu Val Pro Arg Asn Pro Cys Arg Met Ser Cys Gln Asn His Gly 225 230 235 240

Arg Leu Asn Ile Ser Thr Cys His Cys His Cys Pro Pro Gly Tyr Thr 245 250 255

Gly Arg Tyr Cys Gln Val Arg Cys Ser Leu Gln Cys Val His Gly Arg 260 265 270

Phe Arg Glu Glu Glu Cys Ser Cys Val Cys Asp Ile Gly Tyr Gly Gly 275 280 285

Ala Gln Cys Ala Thr Lys Val His Phe Pro Phe His Thr Cys Asp Leu 290 295 300

Arg Ile Asp Gly Asp Cys Phe Met Val Ser Ser Glu Ala Asp Thr Tyr 305 310 315 320

Tyr Arg Ala Arg Met Lys Cys Gln Arg Lys Gly Gly Val Leu Ala Gln 325 330 335

Ile Lys Ser Gln Lys Val Gln Asp Ile Leu Ala Phe Tyr Leu Gly Arg

Leu Glu Thr Thr Asn Glu Val Ile Asp Ser Asp Phe Glu Thr Arg Asn 355 360 365

Phe Trp Ile Gly Leu Thr Tyr Lys Thr Ala Lys Asp Ser Phe Arg Trp 370 375 380

Ala Thr Gly Glu His Gln Ala Phe Thr Ser Phe Ala Phe Gly Gln Pro 385 390 395 400

Asp Asn His Gly Phe Gly Asn Cys Val Glu Leu Gln Ala Ser Ala Ala 405 410 415

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Gln Phe Ala Gln Glu His Ile Ser Arg Trp Gly Pro Gly Ser 435 440 445

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<400> 48

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Gly Leu Ala Leu Ser Gln Leu Ala Ala Gly Ala Thr Asp Cys Lys Phe 20 25 30

Leu Gly Pro Ala Glu His Leu Thr Phe Thr Pro Ala Ala Arg Ala Arg
35 40 45

Trp Leu Ala Pro Arg Val Arg Ala Pro Gly Leu Leu Asp Ser Leu Tyr 50 55 60

- Gly Thr Val Arg Arg Phe Leu Ser Val Val Gln Leu Asn Pro Phe Pro 65 70 75 80
- Ser Glu Leu Val Lys Ala Leu Leu Asn Glu Leu Ala Ser Val Lys Val 85 90 95
- Asn Glu Val Val Arg Tyr Glu Ala Gly Tyr Val Val Cys Ala Val Ile 100 105 110
- Ala Gly Leu Tyr Leu Leu Leu Val Pro Thr Ala Gly Leu Cys Phe Cys 115 120 125
- Cys Cys Arg Cys His Arg Arg Cys Gly Gly Arg Val Lys Thr Glu His
- Lys Ala Leu Ala Cys Glu Arg Ala Ala Leu Met Val Phe Leu Leu Leu 145 150 155 160
- Thr Thr Leu Leu Leu Ile Gly Val Val Cys Ala Phe Val Thr Asn 165 170 175
- Gln Arg Thr His Glu Gln Met Gly Pro Ser Ile Glu Ala Met Pro Glu 180 185 190
- Thr Leu Leu Ser Leu Trp Gly Leu Val Ser Asp Val Pro Gln Glu Leu 195 200 205
- Gln Ala Val Ala Gln Gln Phe Ser Leu Pro Gln Glu Gln Val Ser Glu 210 215 220
- Glu Leu Asp Gly Val Gly Val Ser Ile Gly Ser Ala Ile His Thr Gln
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- Leu Arg Ser Ser Val Tyr Pro Leu Leu Ala Ala Val Gly Ser Leu Gly
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- Gln Val Leu Gln Val Ser Val His His Leu Gln Thr Leu Asn Ala Thr 260 265 270
- Val Val Glu Leu Gln Ala Gly Gln Gln Asp Leu Glu Pro Ala Ile Arg 275 280 285
- Glu His Arg Asp Arg Leu Leu Glu Leu Leu Gln Glu Ala Arg Cys Gln 290 295 300
- Gly Asp Cys Ala Gly Ala Leu Ser Trp Ala Arg Thr Leu Glu Leu Gly 305 310 315 320
- Ala Asp Phe Ser Gln Val Pro Ser Val Asp His Val Leu His Gln Leu 325 330 335
- Lys Gly Val Pro Glu Ala Asn Phe Ser Ser Met Val Gln Glu Glu Asn 340 345 350
- Ser Thr Phe Asn Ala Leu Pro Ala Leu Ala Ala Met Gln Thr Ser Ser 355 360 365

- Val Val Gln Glu Leu Lys Lys Ala Val Ala Gln Gln Pro Glu Gly Val 370 375 380
- Arg Thr Leu Ala Glu Gly Phe Pro Gly Leu Glu Ala Ala Ser Arg Trp 385 390 395 400
- Ala Gln Ala Leu Gln Glu Val Glu Glu Ser Ser Arg Pro Tyr Leu Gln 405 410 415
- Glu Val Gln Arg Tyr Glu Thr Tyr Arg Trp Ile Val Gly Cys Val Leu 420 425 430
- Cys Ser Val Val Leu Phe Val Val Leu Cys Asn Leu Leu Gly Leu Asn 435 440 445
- Leu Gly Ile Trp Gly Leu Ser Ala Arg Asp Asp Pro Ser His Pro Glu
 450 455 460
- Ala Lys Gly Glu Ala Gly Ala Arg Phe Leu Met Ala Gly Val Gly Leu 465 470 475 480
- Ser Phe Leu Phe Ala Ala Pro Leu Ile Leu Leu Val Phe Ala Thr Phe 485 490 495
- Leu Val Gly Gly Asn Val Gln Thr Leu Val Cys Arg Ser Trp Glu Asn 500 505 510
- Gly Glu Leu Phe Glu Phe Ala Asp Thr Pro Gly Asn Leu Pro Pro Ser 515 520 525
- Met Asn Leu Ser Gln Leu Leu Gly Leu Arg Lys Asn Ile Ser Ile His 530 535 540
- Gln Ala Tyr Gln Gln Cys Lys Glu Gly Ala Ala Leu Trp Thr Val Leu 545 550 555 560
- Gln Leu Asn Asp Ser Tyr Asp Leu Glu Glu His Leu Asp Ile Asn Gln 565 570 575
- Tyr Thr Asn Lys Leu Arg Gln Glu Leu Gln Ser Leu Lys Val Asp Thr 580 585 590
- Gln Ser Leu Asp Leu Leu Ser Ser Ala Ala Arg Arg Asp Leu Glu Ala 595 600 605
- Leu Gln Ser Ser Gly Leu Gln Arg Ile His Tyr Pro Asp Phe Leu Val 610 615 620
- Gln Ile Gln Arg Pro Val Val Lys Thr Ser Met Glu Gln Leu Ala Gln 625 630 635 640
- Glu Leu Gln Gly Leu Ala Gln Ala Gln Asp Asn Ser Val Leu Gly Gln 645 650 655
- Arg Leu Gln Glu Glu Ala Gln Gly Leu Arg Asn Leu His Gln Glu Lys 660 665 670
- Val Val Pro Gln Gln Ser Leu Val Ala Lys Leu Asn Leu Ser Val Arg

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Arg Ile	Leu	Arg	Asn 725	Val	Ser	Glu	Cys	Phe 730	Leu	Ala	Arg	Glu	Met 735	Gly
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Cys Le	u Let 3!		ı Asr	ı Leu	. Lev	ı Ile		e Phe	e Ser	c Glu	Lys 45		Val	Ser
Glu As 5	n Pro	o Asr	ı Ile	e Val	. Val		e Gly	z Leu	ı Ala	a Xaa		l Ile	. Met	Leu
Ser Il 65	e Me	t Phe	e Ile	e Lys 70) Let	ı Lev	ı Ile	e Let 75		ı Ile	e Phe	e Leu	Leu 80

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Asn Ser Leu Leu Thr Thr Ser 100

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<400> 50

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Lys Gly Ala Ser His Tyr Gly Leu Thr Lys Asp Arg Lys Arg Arg Ser 35 40 45

Gln Asp Gly Cys Pro Asp Gly Cys Ala Ser Leu Thr Ala Thr Ala Pro

Ser Pro Glu Val Ser Ala Ala Ala Thr Ile Ser Leu Met Thr Asp Glu
65 70 75 80

Pro Gly Leu Asp Asn Pro Ala Tyr Val Ser Ser Ala Glu Asp Gly Gln
85 90 95

Pro Ala Ile Ser Pro Val Asp Ser Gly Arg Ser Asn Arg Thr Arg Ala 100 105 110

Arg Pro Phe Glu Arg Ser Thr Ile Arg Ser Arg Ser Phe Lys Lys Ile 115 120 125

Asn Arg Ala Leu Ser Val Leu Arg Arg Thr Lys Ser Gly Ser Ala Val 130 135 140

Ala Asn His Ala Asp Gln Gly Arg Glu Asn Ser Glu Asn Thr Thr Ala 145 150 150 160

Pro Glu Val Phe Pro Arg Leu Tyr His Leu Ile Pro Asp Gly Glu Ile 165 170 175

Thr Ser Ile Lys Ile Asn Arg Val Asp Pro Ser Glu Ser Leu Ser Ile 180 185 190

Arg Leu Val Gly Gly Ser Glu Thr Pro Leu Val His Ile Ile Ile Gln 195 200 205

His Ile Tyr Arg Asp Gly Val Ile Ala Arg Asp Gly Arg Leu Leu Pro 210 215 220

Gly Asp Ile Ile Leu Lys Val Asn Gly Met Asp Ile Ser Asn Val Pro 225 230 235 240

His Asn Tyr Ala Val Arg Leu Leu Arg Gln Pro Cys Gln Val Leu Trp 245 250 255

Leu Thr Val Met Arg Glu Gln Lys Phe Arg Ser Arg Asn Asn Gly Gln 260 265 270

Ala Pro Asp Ala Tyr Arg Pro Arg Asp Asp Ser Phe His Val Ile Leu 275 280 285

Asn Lys Ser Ser Pro Glu Glu Gln Leu Gly Ile Lys Leu Val Arg Lys 290 295 300

Val Asp Glu Pro Gly Val Phe Ile Phe Asn Val Leu Asp Gly Gly Val 305 310 315 320

Ala Tyr Arg His Gly Gln Leu Glu Glu Asn Asp Arg Val Leu Ala Ile 325 330 335

Asn Gly His Asp Leu Arg Tyr Gly Ser Pro Glu Ser Ala Ala His Leu 340 345 350

Ile Gln Ala Ser Glu Arg Arg Val His Leu Val Val Ser Arg Gln Val
355 360 365

Arg Gln Arg Ser Pro Asp Ile Phe Gln Glu Ala Gly Trp Asn Ser Asn 370 375 380

Gly Ser Trp Ser Pro Gly Pro Gly Glu Arg Ser Asn Thr Pro Lys Pro 385 390 395 400

Leu His Pro Thr Ile Thr Cys His Glu Lys Val Val Asn Ile Gln Lys 405 410 415

Arg Pro Arg

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<213> Homo sapiens

<400> 51

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Asp Val Glu Thr Ile Asp Arg Phe Asn Asn Tyr Arg Leu Phe Pro Arg
50 55 60

Leu Gln Lys Leu Leu Glu Ser Asp Tyr Phe Arg Tyr Tyr Lys Val Asn 65 70 75 80

- Leu Lys Arg Pro Cys Pro Phe Trp Asn Asp Ile Ser Gln Cys Gly Arg 85 90 95
- Arg Asp Cys Ala Val Lys Pro Cys Gln Ser Asp Glu Val Pro Asp Gly
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- Ile Lys Ser Ala Ser Tyr Lys Tyr Ser Glu Glu Ala Asn Asn Leu Ile 115 120 125
- Glu Glu Cys Glu Gln Ala Glu Arg Leu Gly Ala Val Asp Glu Ser Leu 130 135 140
- Ser Glu Glu Thr Gln Lys Ala Val Leu Gln Trp Thr Lys His Asp Asp
- Ser Ser Asp Asn Phe Cys Glu Ala Asp Asp Ile Gln Ser Pro Glu Ala 165 170 175
- Glu Tyr Val Asp Leu Leu Leu Asn Pro Glu Arg Tyr Thr Gly Tyr Lys 180 185 190
- Gly Pro Asp Ala Trp Lys Ile Trp Asn Val Ile Tyr Glu Glu Asn Cys 195 200 205
- Phe Lys Pro Gln Thr Ile Lys Arg Pro Leu Asn Pro Leu Ala Ser Gly 210 215 220
- Gln Gly Thr Ser Glu Glu Asn Thr Phe Tyr Ser Trp Leu Glu Gly Leu 225 230 235 240
- Cys Val Glu Lys Arg Ala Phe Tyr Arg Leu Ile Ser Gly Leu His Ala 245 250 255
- Ser Ile Asn Val His Leu Ser Ala Arg Tyr Leu Leu Gln Glu Thr Trp 260 265 270
- Leu Glu Lys Lys Trp Gly His Asn Ile Thr Glu Phe Gln Gln Arg Phe 275 280 285
- Asp Gly Ile Leu Thr Glu Gly Glu Gly Pro Arg Arg Leu Lys Asn Leu 290 295 300
- Tyr Phe Leu Tyr Leu Ile Glu Leu Arg Ala Leu Ser Lys Val Leu Pro 305 310 315 320
- Phe Phe Glu Arg Pro Asp Phe Gln Leu Phe Thr Gly Asn Lys Ile Gln 325 330 335
- Asp Glu Glu Asn Lys Met Leu Leu Leu Glu Ile Leu His Glu Ile Lys 340 345 350
- Ser Phe Pro Leu His Phe Asp Glu Asn Ser Phe Phe Ala Gly Asp Lys 355 360 365
- Lys Glu Ala His Lys Leu Lys Glu Asp Phe Arg Leu His Phe Arg Asn 370 375 380

Ile Ser Arg Ile Met Asp Cys Val Gly Cys Phe Lys Cys Arg Leu Trp 385 390 395 400

Gly Lys Leu Gln Thr Gln Gly Leu Gly Thr Ala Leu Lys Ile Leu Phe 405 410 415

Ser Glu Lys Leu Ile Ala Asn Met Pro Glu Ser Gly Pro Ser Tyr Glu 420 425 430

Phe His Leu Thr Arg Gln Glu Ile Val Ser Leu Phe Asn Ala Phe Gly 435 440 445

Arg Ile Ser Thr Ser Val Lys Glu Leu Glu Asn Phe Arg Asn Leu Leu 450 455 460

Gln Asn Ile His 465

<210> 52

<211> 347

<212> PRT

<213> Homo sapiens

<400> 52

Met Val Thr Arg Ala Gly Ala Gly Thr Ala Val Ala Gly Ala Val Val

Val Ala Leu Leu Ser Ala Ala Leu Ala Leu Tyr Gly Pro Pro Leu Asp 20 25 30

Ala Val Leu Glu Arg Ala Phe Ser Leu Arg Lys Ala His Ser Ile Lys 35 40 45

Asp Met Glu Asn Thr Leu Gln Leu Val Arg Asn Ile Ile Pro Pro Leu 50 55 60

Ser Ser Thr Lys His Lys Gly Gln Asp Gly Arg Ile Gly Val Val Gly 65 70 75 80

Gly Cys Gln Glu Tyr Thr Gly Ala Pro Tyr Phe Ala Ala Ile Ser Ala 85 90 95

Leu Lys Val Gly Ala Asp Leu Ser His Val Phe Cys Ala Ser Ala Ala 100 105 110

Ala Pro Val Ile Lys Ala Tyr Ser Pro Glu Leu Ile Val His Pro Val 115 120 125

Leu Asp Ser Pro Asn Ala Val His Glu Val Glu Lys Trp Leu Pro Arg 130 135 140

Leu His Ala Leu Val Val Gly Pro Gly Leu Gly Arg Asp Asp Ala Leu 145 150 160

Leu Arg Asn Val Gln Gly Ile Leu Glu Val Ser Lys Ala Arg Asp Ile 165 170 175 Pro Val Val Ile Asp Ala Asp Gly Leu Trp Leu Val Ala Gln Gln Pro 180 185 190

Ala Leu Ile His Gly Tyr Arg Lys Ala Val Leu Thr Pro Asn His Val 195 200 205

Glu Phe Ser Arg Leu Tyr Asp Ala Val Leu Arg Gly Pro Met Asp Ser 210 215 220

Asp Asp Ser His Gly Ser Val Leu Arg Leu Ser Gln Ala Leu Gly Asn 225 230 235 240

Val Thr Val Val Gln Lys Gly Glu Arg Asp Ile Leu Ser Asn Gly Gln 245 250 255

Gln Val Leu Val Cys Ser Gln Glu Gly Ser Ser Arg Arg Cys Gly Gly 260 265 270

Gln Gly Asp Leu Leu Ser Gly Ser Leu Gly Val Leu Val His Trp Ala 275 280 285

Leu Leu Ala Gly Pro Gln Lys Thr Asn Gly Ser Ser Pro Leu Leu Val 290 295 300

Ala Ala Phe Gly Ala Cys Ser Leu Thr Arg Gln Cys Asn His Gln Ala 305 310 315 320

Phe Gln Lys His Gly Arg Ser Thr Thr Thr Ser Asp Met Ile Ala Glu 325 330 335

Val Gly Ala Ala Phe Ser Lys Leu Phe Glu Thr 340 345

<210> 53

<211> 523

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (248)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (249)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 53

Met Leu Arg Asn Gly Asn Lys Tyr Leu Leu Met Leu Val Ser Ile Ile 1 5 10 15

Met Leu Thr Ala Cys Ile Ser Gln Ser Arg Thr Ser Phe Ile Pro Pro 20 25 30

Gln Asp Arg Glu Ser Leu Leu Ala Glu Gln Pro Trp Pro His Asn Gly

- Phe Val Ala Ile Ser Trp His Asn Val Glu Asp Glu Ala Ala Asp Gln 50 55 60
- Arg Phe Met Ser Val Arg Thr Ser Ala Leu Arg Glu Gln Phe Ala Trp 65 70 75 80
- Leu Arg Glu Asn Gly Tyr Gln Pro Val Ser Ile Ala Gln Ile Arg Glu 85 90 95
- Ala His Arg Gly Gly Lys Pro Leu Pro Glu Lys Ala Val Val Leu Thr
- Phe Asp Asp Gly Tyr Gln Ser Phe Tyr Thr Arg Val Phe Pro Ile Leu 115 120 125
- Gln Ala Phe Gln Trp Pro Ala Val Trp Ala Pro Val Gly Ser Trp Val
- Asp Thr Pro Ala Asp Lys Gln Val Lys Phe Gly Asp Glu Leu Val Asp 145 150 155 160
- Arg Glu Tyr Phe Ala Thr Trp Gln Gln Val Arg Glu Val Ala Arg Ser 165 170 175
- Arg Leu Val Glu Leu Ala Ser His Thr Trp Asn Ser His Tyr Gly Ile 180 185 190
- Gln Ala Asn Ala Thr Gly Ser Leu Leu Pro Val Tyr Val Asn Arg Ala
- Tyr Phe Thr Asp His Ala Arg Tyr Glu Thr Ala Ala Glu Tyr Arg Glu 210 215 220
- Arg Ile Arg Leu Asp Ala Val Lys Met Thr Glu Tyr Leu Arg Thr Lys 225 230 235 240
- Val Glu Val Asn Pro His Val Xaa Xaa Trp Pro Tyr Gly Glu Ala Asn 245 250 255
- Gly Ile Ala Ile Glu Glu Leu Lys Lys Leu Gly Tyr Asp Met Phe Phe 260 265 270
- Thr Leu Glu Ser Gly Leu Ala Asn Ala Ser Gln Leu Asp Ser Ile Pro 275 280 285
- Arg Val Leu Ile Ala Asn Asn Pro Ser Leu Lys Glu Phe Ala Gln Gln 290 295 300
- Ile Ile Thr Val Gln Glu Lys Ser Pro Gln Arg Ile Met His Ile Asp 305 310 315 320
- Leu Asp Tyr Val Tyr Asp Glu Asn Leu Gln Gln Met Asp Arg Asn Ile 325 330 335
- Asp Val Leu Ile Gln Arg Val Lys Asp Met Gln Ile Ser Thr Val Tyr 340 345 350

Leu Gln Ala Phe Ala Asp Pro Asp Gly Asp Gly Leu Val Lys Glu Val 355 360 365

Trp Phe Pro Asn Arg Leu Leu Pro Met Lys Ala Asp Ile Phe Ser Arg 370 375 380

Val Ala Trp Gln Leu Arg Thr Arg Ser Gly Val Asn Ile Tyr Ala Trp 385 390 395 400

Met Pro Val Leu Ser Trp Asp Leu Asp Pro Thr Leu Thr Arg Val Lys
405 410 415

Tyr Leu Pro Thr Gly Glu Lys Lys Ala Gln Ile His Pro Glu Gln Tyr
420 425 430

His Arg Leu Ser Pro Phe Asp Asp Arg Val Arg Ala Gln Val Gly Met
435 440 445

Leu Tyr Glu Asp Leu Ala Gly His Ala Ala Phe Asp Gly Ile Leu Phe 450 455 460

His Asp Asp Ala Leu Leu Ser Asp Tyr Glu Asp Ala Ser Ala Pro Ala 465 470 475 480

Ile Thr Ala Tyr Gln Gln Ala Gly Phe Ser Gly Ser Leu Ser Glu Ile 485 490 495

Arg Gln Asn Pro Glu Gln Phe Lys Gln Trp Ala Arg Phe Lys Ser Arg
500 505 510

Ala Leu Thr Asp Phe Thr Leu Glu Leu Ser Ala 515 520

<210> 54

<211> 220

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (170)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 54

Met Ala Thr Val Arg Ala Ser Leu Arg Gly Ala Leu Leu Leu Leu 1 5 10 15

Ala Val Ala Gly Val Ala Gly Val Ala Gly Gly Leu Ala Pro Gly Ser 20 25 30

Ala Gly Ala Leu Cys Cys Asn His Ser Lys Asp Asn Gln Met Cys Arg 35 40 45

Asp Val Cys Glu Gln Ile Phe Ser Ser Lys Ser Glu Ser Arg Leu Lys
50 55 60

His Leu Leu Gln Arg Ala Pro Asp Tyr Cys Pro Glu Thr Met Val Glu

65					70					75					80
Ile	Trp	Asn	Cys	Met 85	Asn	Ser	Ser	Leu	Pro 90	Gly	Val	Phe	Lys	Lys 95	Ser
qaA	Gly	Trp	Val 100	Gly	Leu	Gly	Cys	Cys 105	Glu	Leu	Ala	Ile	Ala 110	Leu	Glu
Cys	Arg	Gln 115	Ala	Cys	Lys	Gln	Ala 120	Ser	Ser	Lys	Asn	Asp 125	Ile	Ser	Lys
Val	Cys 130	Arg	Lys	Glu	Tyr	Glu 135	Asn	Ala	Leu	Phe	Ser 140	Cys	Ile	Ser	Arg
Asn 145	Glu	Met	Gly	Ser	Val 150	Cys	Cys	Ser	Tyr	Ala 155	Gly	His	His	Thr	Asn 160
Cys	Arg	Glu	Tyr	Сув 165	Gln	Ala	Ile	Phe	Xaa 170	Thr	Asp	Ser	Ser	Pro 175	Gly
Pro	Ser	Gln	Ile 180	Lys	Ala	Val	Glu	Asn 185	Tyr	Cys	Ala	Ser	Ile 190	Ser	Pro
Gln	Leu	Ile 195	His	Cys	Val	Asn	Asn 200	Tyr	Thr	Gln	Ser	Tyr 205	Pro	Met	Arg
Asn	Pro 210	Thr	Asp	Ser	Arg	Ser 215	Val	Leu	Ser	Asp	Ile 220				
<210> 55 <211> 93 <212> PRT <213> Homo sapiens															
)> 55														
Met 1	Gly	Ala	Ala	Leu 5	Leu	Trp	Glu	Val	Leu 10	Val	Gly	Gly	Thr	Arg 15	Ala
Leu	Thr	Asn	Leu 20	Leu	Leu	Leu	Gly	Gly 25	Thr	Ser	Pro	Gly	Arg 30	Thr	Ser
Gln	Leu	Gln 35	Val	Leu	Arg	Leu	Pro 40	Val	Ala	Ala	Glu	Pro 45	Val	Pro	Leu
Ala	Phe 50	Ser	ser	His	Asn	Gly 55	Glu	Gly	Asp	Phe	Gly 60	Ile	Leu	Thr	Asn
Ser 65	Ser	Leu	Gly	Leu	Ser 70	Leu	Leu	Pro	Ser	Thr 75	Ala	Ser	Arg	Phe	Ser 80
Ser	Ile	Cys	Ala	Tyr 85	Tyr	Leu	Arg	Thr	Val 90	Ser	Ala	Pro			

<210> 56 <211> 79 <212> PRT

<213> Homo sapiens

<400> 56

Met Val Pro Trp Phe Leu Leu Trp Ser Ser Phe Phe Ile Gly Thr Ser 1 10 15

Ser Ala Tyr Ile Asp Lys Gln Val Lys Ile Val Arg Gln Lys Ser Thr 20 25 30

Tyr Trp Gly Glu Lys Phe Leu Lys Arg Cys Glu Arg Glu Arg Ile Lys 35 40 45

Glu Ser Glu Gln Ser Gly Lys Arg Gly Glu Leu Arg Glu Arg Gln Gln 50 55 60

Lys Ser Asn Glu Ala Gly Cys Ile Tyr Gln Ser Ile Ile Leu Ile 65 70 75

<210> 57

<211> 74

<212> PRT

<213> Homo sapiens

<400> 57

Met Ala Val Val Pro Thr Trp Cys Ser Thr Val Leu Leu Thr Leu Cys

1 10 15

Pro Gln Leu Ala Trp Trp Gln Val Trp Arg Met Cys Arg Tyr Thr Thr 20 25 30

Gly Lys Met Pro Ser Ser Pro Ser Ile Ser Pro Pro Ser Ser Arg Val

Pro Gly Ser Leu Met Gly Lys Ser Ser Arg Val Thr Ser Arg Arg Ala

Arg Trp Asn Leu Gly Pro Cys Gly Thr Val

<210> 58

<211> 446

<212> PRT

<213> Homo sapiens

<400> 58

Met Thr Ser Lys Glu Ile Ile Leu Gly Leu Cys Leu Leu Ser Leu Val 1 5 10

Leu Ser Met Ile Leu Met Val Ile Ile Arg Tyr Ile Ser Arg Val Leu 20 25 30

Val Trp Ile Leu Thr Ile Leu Val Ile Leu Gly Ser Leu Gly Gly Thr 35 40 45

Gly Val Leu Trp Trp Pro Tyr Ala Lys Gln Arg Arg Ser Pro Lys Glu
50 60

- Thr Val Thr Pro Glu Gln Leu Gln Ile Ala Glu Asp Asn Leu Arg Ala 65 70 75 80
- Leu Leu Ile Tyr Ala Ile Ser Ala Thr Val Phe Thr Val Ile Leu Phe 85 90 95
- Leu Ile Met Leu Val Met Arg Lys Arg Val Ala Leu Thr Ile Ala Leu 100 105 110
- Phe His Val Ala Gly Lys Val Phe Ile His Leu Pro Leu Leu Val Phe 115 120 125
- Gln Pro Phe Trp Thr Phe Phe Ala Leu Val Leu Phe Trp Val Tyr Trp 130 140
- Ile Met Thr Leu Leu Phe Leu Gly Thr Thr Gly Ser Pro Val Gln Asn 145 150 155 160
- Glu Gln Gly Phe Val Glu Phe Lys Ile Ser Gly Pro Leu Gln Tyr Met 165 170 175
- Trp Trp Tyr His Val Val Gly Leu Ile Trp Ile Ser Glu Phe Ile Leu 180 185 190
- Ala Cys Gln Gln Met Thr Val Ala Gly Ala Val Val Thr Tyr Tyr Phe 195 200 205
- Thr Arg Asp Lys Arg Asn Leu Pro Phe Thr Pro Ile Leu Ala Ser Val 210 215 220
- Asn Arg Leu Ile Arg Tyr His Leu Gly Thr Val Ala Lys Gly Ser Phe 225 230 235
- Ile Ile Thr Leu Val Lys Ile Pro Arg Met Ile Leu Met Tyr Ile His $245 \hspace{1.5cm} 250 \hspace{1.5cm} 255$
- Ser Gln Leu Lys Gly Lys Glu Asn Ala Cys Ala Arg Cys Val Leu Lys 260 265 270
- Ser Cys Ile Cys Cys Leu Trp Cys Leu Glu Lys Cys Leu Asn Tyr Leu 275 280 285
- Asn Gln Asn Ala Tyr Thr Ala Thr Ala Ile Asn Ser Thr Asn Phe Cys 290 295 300
- Thr Ser Ala Lys Asp Ala Phe Val Ile Leu Val Glu Asn Ala Leu Arg 305 310 315 320
- Val Ala Thr Ile Asn Thr Val Gly Asp Phe Met Leu Phe Leu Gly Lys 325 330 335
- Val Leu Ile Val Cys Ser Thr Gly Leu Ala Gly Ile Met Leu Leu Asn 340 345 350
- Tyr Gln Gln Asp Tyr Thr Val Trp Val Leu Pro Leu Ile Ile Val Cys 355 360 365

Leu Phe Ala Phe Leu Asp Ala His Cys Phe Leu Ser Ile Tyr Glu Met 370 375 380

Val Val Asp Val Leu Phe Leu Cys Phe Ala Ile Asp Thr Lys Tyr Asn 385 390 395 400

Asp Gly Ser Pro Gly Arg Glu Phe Tyr Met Asp Lys Val Leu Met Glu 405 410 415

Phe Val Glu Asn Ser Arg Lys Ala Met Lys Glu Ala Gly Lys Gly Gly 420 425 430

Val Ala Asp Ser Arg Glu Leu Lys Pro Met Leu Lys Lys Arg 435 440 445

<210> 59

<211> 58

<212> PRT

<213> Homo sapiens

<400> 59

Met Leu Phe Phe Tyr Leu Asn Tyr Leu Met Ile Ala Leu Leu Leu 1 5 10 15

Phe Lys Lys Ile Gln Lys Ser Asn Lys Gly Lys Asp Gly Asn Leu Met 20 25 30

Ile Glu Gly Val Ala Cys Val Thr Val Gly Gly Lys Glu Tyr Ile Asp $35 \hspace{1.5cm} 40 \hspace{1.5cm} 45$

Phe Ala Leu Val Asp Ile Phe Met Leu Val 50 55

<210> 60

<211> 941

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (807)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (809)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (815)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (819)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 60

Met Val Phe Leu Pro Leu Lys Trp Ser Leu Ala Thr Met Ser Phe Leu 1 5 10 15

Leu Ser Ser Leu Leu Ala Leu Leu Thr Val Ser Thr Pro Ser Trp Cys
20 25 30

Gln Ser Thr Glu Ala Ser Pro Lys Arg Ser Asp Gly Thr Pro Phe Pro $35 \hspace{1cm} 40 \hspace{1cm} 45$

Trp Asn Lys Ile Arg Leu Pro Glu Tyr Val Ile Pro Val His Tyr Asp
50 60

Leu Leu Ile His Ala Asn Leu Thr Thr Leu Thr Phe Trp Gly Thr Thr 65 70 75 80

Lys Val Glu Ile Thr Ala Ser Gln Pro Thr Ser Thr Ile Ile Leu His
85 90 95

Ser His His Leu Gln Ile Ser Arg Ala Thr Leu Arg Lys Gly Ala Gly
100 105 110

Glu Arg Leu Ser Glu Glu Pro Leu Gln Val Leu Glu His Pro Pro Gln 115 120 125

Glu Gln Ile Ala Leu Leu Ala Pro Glu Pro Leu Leu Val Gly Leu Pro 130 135 140

Tyr Thr Val Val Ile His Tyr Ala Gly Asn Leu Ser Glu Thr Phe His 145 150 155 160

Gly Phe Tyr Lys Ser Thr Tyr Arg Thr Lys Glu Gly Glu Leu Arg Ile 165 170 175

Leu Ala Ser Thr Gln Phe Glu Pro Thr Ala Ala Arg Met Ala Phe Pro 180 185 190

Cys Phe Asp Glu Pro Ala Phe Lys Ala Ser Phe Ser Ile Lys Ile Arg 195 200 205

Arg Glu Pro Arg His Leu Ala Ile Ser Asn Met Pro Leu Val Lys Ser 210 215 220

Val Thr Val Ala Glu Gly Leu Ile Glu Asp His Phe Asp Val Thr Val 225 230 235 240

Lys Met Ser Thr Tyr Leu Val Ala Phe Ile Ile Ser Asp Phe Glu Ser 245 250 255

Val Ser Lys Ile Thr Lys Ser Gly Val Lys Val Ser Val Tyr Ala Val 260 265 270

Pro Asp Lys Met Asn Gln Ala Asp Tyr Ala Leu Asp Ala Ala Val Thr 275 280 285

Leu Leu Glu Phe Tyr Glu Asp Tyr Phe Ser Ile Pro Tyr Pro Leu Pro

	290					295					300				
Lys 305	Gln	Asp	Leu	Ala	Ala 310	Ile	Pro	Asp	Phe	Gln 315	Ser	Gly	Ala	Met	Glu 320
Asn	Trp	Gly	Leu	Thr 325	Thr	Tyr	Arg	Glu	Ser 330	Ala	Leu	Leu	Phe	Asp 335	Ala
Glu	Lys	Ser	Ser 340	Ala	Ser	Ser	Lys	Leu 345	Gly	Ile	Thr	Met	Thr 350	Val	Ala
His	Glu	Leu 355	Ala	His	Gln	Trp	Phe 360	Gly	Asn	Leu	Val	Thr 365	Met	Glu	Trp
Trp	Asn 370	Asp	Leu	Trp	Leu	Asn 375	Glu	Gly	Phe	Ala	380	Phe	Met	Glu	Phe
Val 385	Ser	Val	Ser	Val	Thr 390	His	Pro	Glu	Leu	Lys 395	Val	Gly	Asp	Tyr	Phe 400
Phe	Gly	Lys	Cys	Phe 405	Asp	Ala	Met	Glu	Val 410	Asp	Ala	Leu	Asn	Ser 415	Ser
His	Pro	Val	Ser 420	Thr	Pro	Val	Glu	Asn 425	Pro	Ala	Gln	Ile	Arg 430	Glu	Met
Phe	Asp	Asp 435	Val	Ser	Tyr	Asp	Lys 440	Gly	Ala	Cys	Ile	Leu 445	Asn	Met	Leu
Arg	Glu 450	Tyr	Leu	Ser	Ala	Asp 455	Ala	Phe	Lys	Ser	Gly 460	Ile	Val	Gln	Tyr
Leu 465	Gln	Lys	His	Ser	Tyr 470	Lys	Asn	Thr	Lys	Asn 475	Glu	Asp	Leu	Trp	Asp 480
Ser	Met	Ala	Ser	Ile 485	Cys	Pro	Thr	Asp	Gly 490	Val	Lys	Gly	Met	Asp 495	Gly
Phe	Cys	Ser	Arg 500	Ser	Gln	His	Ser	Ser 505	Ser	Ser	Ser	His	Trp 510	His	Gln
Glu	Gly	Val 515	Asp	Val	Lys	Thr	Met 520	Met	Asn	Thr	Trp	Thr 525	Leu	Gln	Arg
Gly	Phe 530	Pro	Leu	Ile	Thr	Ile 535	Thr	Val	Arg	Gly	Arg 540	Asn	Val	His	Met
Lys 545	Gln	Glu	His	Tyr	Met 550	Lys	Gly	Ser	Asp	Gly 555	Ala	Pro	Asp	Thr	Gly 560
Tyr	Leu	Trp	His	Val 565	Pro	Leu	Thr	Phe	Ile 570	Thr	Ser	Lys	Ser	Asp 575	Met
Val	His	Arg	Phe 580	Leu	Leu	Lys	Thr	Lys 585	Thr	Asp	Val	Leu	Ile 590	Leu	Pro
Glu	Glu	Val 595	Glu	Trp	Ile	Lys	Phe 600	Asn	Val	Gly	Met	Asn 605	Gly	Tyr	Tyr

- Ile Val His Tyr Glu Asp Asp Gly Trp Asp Ser Leu Thr Gly Leu Leu 610 615 620
- Lys Gly Thr His Thr Ala Val Ser Ser Asn Asp Arg Ala Ser Leu Ile 625 630 635 . 640
- Asn Asn Ala Phe Gln Leu Val Ser Ile Gly Lys Leu Ser Ile Glu Lys
 645 650 655
- Ala Leu Asp Leu Ser Leu Tyr Leu Lys His Glu Thr Glu Ile Met Pro 660 665 670
- Val Phe Gln Gly Leu Asn Glu Leu Ile Pro Met Tyr Lys Leu Met Glu 675 680 685
- Lys Arg Asp Met Asn Glu Val Glu Thr Gln Phe Lys Ala Phe Leu Ile 690 695 700
- Arg Leu Leu Arg Asp Leu Ile Asp Lys Gln Thr Trp Thr Asp Glu Gly 705 710 715 720
- Ser Val Ser Glu Arg Met Leu Arg Ser Glu Leu Leu Leu Ala Cys 725 730 735
- Val His Asn Tyr Gln Pro Cys Val Gln Arg Ala Glu Gly Tyr Phe Arg
 740 745 750
- Lys Trp Lys Glu Ser Asn Gly Asn Leu Ser Leu Pro Val Asp Val Thr 755 760 765
- Leu Ala Val Phe Ala Val Gly Ala Gln Ser Thr Glu Gly Trp Asp Phe
 770 775 780
- Leu Tyr Ser Lys Tyr Gln Phe Ser Leu Ser Ser Thr Glu Lys Ser Gln 785 790 795 800
- Ile Glu Phe Ala Leu Cys Xaa Pro Xaa Asn Lys Glu Lys Leu Xaa Trp 805 810 815
- Leu Leu Xaa Glu Ser Phe Lys Gly Asp Lys Ile Lys Thr Gln Glu Phe 820 825 830
- Pro Gln Ile Leu Thr Leu Ile Gly Arg Asn Pro Val Gly Tyr Pro Leu 835 840 845
- Ala Trp Gln Phe Leu Arg Lys Asn Trp Asn Lys Leu Val Gln Lys Phe 850 855 860
- Glu Leu Gly Ser Ser Ser Ile Ala His Met Val Met Gly Thr Thr Asn 865 870 875
- Gln Phe Ser Thr Arg Thr Arg Leu Glu Glu Val Lys Gly Phe Phe Ser 885 890 895
- Ser Leu Lys Glu Asn Gly Ser Gln Leu Arg Cys Val Gln Gln Thr Ile 900 910

Glu Thr Ile Glu Glu Asn Ile Gly Trp Met Asp Lys Asn Phe Asp Lys 915 920 925

Ile Arg Val Trp Leu Gln Ser Glu Lys Leu Glu Arg Met 930 935 940

<210> 61

<211> 549

<212> PRT

<213> Homo sapiens

<400> 61

Met Trp Leu Pro Leu Val Leu Leu Leu Ala Val Leu Leu Leu Ala Val 1 5 10 15

Leu Cys Lys Val Tyr Leu Gly Leu Phe Ser Gly Ser Ser Pro Asn Pro 20 25 30

Phe Ser Glu Asp Val Lys Arg Pro Pro Ala Pro Leu Val Thr Asp Lys
35 40 45

Glu Ala Arg Lys Lys Val Leu Lys Gln Gly Ile His Tyr Ile Gly Arg
50 55 60

Met Glu Glu Gly Ser Ile Gly Arg Phe Ile Leu Asp Gln Ile Thr Glu 65 70 75 80

Gly Gln Leu Asp Trp Ala Pro Leu Ser Ser Pro Phe Asp Ile Met Val 85 90 95

Leu Glu Gly Pro Asn Gly Arg Lys Glu Tyr Pro Met Tyr Ser Gly Glu
100 105 110

Lys Ala Tyr Ile Gln Gly Leu Lys Glu Lys Phe Pro Gln Glu Glu Ala 115 120 125

Ile Ile Asp Lys Tyr Ile Lys Leu Val Lys Val Val Ser Ser Gly Ala 130 135 140

Pro His Ala Ile Leu Leu Lys Phe Leu Pro Leu Pro Val Val Gln Leu 145 150 155 160

Leu Asp Arg Cys Gly Leu Leu Thr Arg Phe Ser Pro Phe Leu Gln Ala 165 170 175

Ser Thr Gln Ser Leu Ala Glu Val Leu Gln Gln Leu Gly Ala Ser Ser 180 185 190

Glu Leu Gln Ala Val Leu Ser Tyr Ile Phe Pro Thr Tyr Gly Val Thr 195 200 205

Pro Asn His Ser Ala Phe Ser Met His Ala Leu Leu Val Asn His Tyr 210 215 220

Met Lys Gly Gly Phe Tyr Pro Arg Gly Gly Ser Ser Glu Ile Ala Phe 225 230 235

- His Thr Ile Pro Val Ile Gln Arg Ala Gly Gly Ala Val Leu Thr Lys 245 250 255
- Ala Thr Val Gln Ser Val Leu Leu Asp Ser Ala Gly Lys Ala Cys Gly 260 265 270
- Val Ser Val Lys Lys Gly His Glu Leu Val Asn Ile Tyr Cys Pro Ile 275 280 285
- Val Val Ser Asn Ala Gly Leu Phe Asn Thr Tyr Glu His Leu Leu Pro 290 295 300
- Gly Asn Ala Arg Cys Leu Pro Gly Val Lys Gln Gln Leu Gly Thr Val 305 310 315 320
- Arg Pro Gly Leu Gly Met Thr Ser Val Phe Ile Cys Leu Arg Gly Thr 325 330 335
- Lys Glu Asp Leu His Leu Pro Ser Thr Asn Tyr Tyr Val Tyr Tyr Asp 340 345 350
- Thr Asp Met Asp Gln Ala Met Glu Arg Tyr Val Ser Met Pro Arg Glu 355 360 365
- Glu Ala Ala Glu His Ile Pro Leu Leu Phe Phe Ala Phe Pro Ser Ala 370 375 380
- Lys Asp Pro Thr Trp Glu Asp Arg Phe Pro Gly Arg Ser Thr Met Ile 385 390 395 400
- Met Leu Ile Pro Thr Ala Tyr Glu Trp Phe Glu Glu Trp Gln Ala Glu 405 410 415
- Leu Lys Gly Lys Arg Gly Ser Asp Tyr Glu Thr Phe Lys Asn Ser Phe 420 425 430
- Val Glu Ala Ser Met Ser Val Val Leu Lys Leu Phe Pro Gln Leu Glu 435 440 445
- Gly Lys Val Glu Ser Val Thr Ala Gly Ser Pro Leu Thr Asn Gln Phe 450 460
- Tyr Leu Ala Ala Pro Arg Gly Ala Cys Tyr Gly Ala Asp His Asp Leu 475 480
- Gly Arg Leu His Pro Cys Val Met Ala Ser Leu Arg Ala Gln Ser Pro 485 490 495
- Ile Pro Asn Leu Tyr Leu Thr Gly Gln Asp Ile Phe Thr Cys Gly Leu 500 505 510
- Val Gly Ala Leu Gln Gly Ala Leu Leu Cys Ser Ser Ala Ile Leu Lys 515 520 525
- Arg Asn Leu Tyr Ser Asp Leu Lys Asn Leu Asp Ser Arg Ile Arg Ala 530 535 540
- Gln Lys Lys Lys Asn

<210> 62

<211> 326

<212> PRT

<213> Homo sapiens

<400> 62

Met Arg Thr Glu Ala Gln Val Pro Ala Leu Gln Pro Pro Glu Pro Gly
1 5 10 15

Leu Glu Gly Ala Met Gly His Arg Thr Leu Val Leu Pro Trp Val Leu
20 25 30

Leu Thr Leu Cys Val Thr Ala Gly Thr Pro Glu Val Trp Val Gln Val 35 40 45

Arg Met Glu Ala Thr Glu Leu Ser Ser Phe Thr Ile Arg Cys Gly Phe 50 55 60

Leu Gly Ser Gly Ser Ile Ser Leu Val Thr Val Ser Trp Gly Gly Pro
65 70 75 80

Asp Gly Ala Gly Gly Thr Thr Leu Ala Val Leu His Pro Glu Arg Gly 85 90 95

Ile Arg Gln Trp Ala Pro Ala Arg Gln Ala Arg Trp Glu Thr Gln Ser
100 105 110

Ser Ile Ser Leu Ile Leu Glu Gly Ser Gly Ala Ser Ser Pro Cys Ala 115 120 125

Asn Thr Thr Phe Cys Cys Lys Phe Ala Ser Phe Pro Glu Gly Ser Trp 130 135 140

Glu Ala Cys Gly Ser Leu Pro Pro Ser Ser Asp Pro Gly Leu Ser Ala 145 150 155 160

Pro Pro Thr Pro Ala Pro Ile Leu Arg Ala Asp Leu Ala Gly Ile Leu 165 170 175

Gly Val Ser Gly Val Leu Leu Phe Gly Cys Val Tyr Leu Leu His Leu 180 185 190

Leu Arg Arg His Lys His Arg Pro Ala Pro Arg Leu Gln Pro Ser Arg 195 200 205

Thr Ser Pro Gln Ala Pro Arg Ala Arg Ala Trp Ala Pro Ser Gln Ala 210 215 220

Ser Gln Ala Ala Leu His Val Pro Tyr Ala Thr Ile Asn Thr Ser Cys 225 230 235 240

Arg Pro Ala Thr Leu Asp Thr Ala His Pro His Gly Gly Pro Ser Trp
245 250 255

Trp Ala Ser Leu Pro Thr His Ala Ala His Arg Pro Gln Gly Pro Ala

260 265 270

Ala Trp Ala Ser Thr Pro Ile Pro Ala Arg Gly Ser Phe Val Ser Val 275 280 285

Glu Asn Gly Leu Tyr Ala Gln Ala Gly Glu Arg Pro Pro His Thr Gly 290 295 300

Pro Gly Leu Thr Leu Phe Pro Asp Pro Arg Gly Pro Arg Ala Met Glu 305 310 315 320

Gly Pro Leu Gly Val Arg 325

<210> 63

<211> 267

<212> PRT

<213> Homo sapiens

<400> 63

Met Ala Pro Trp Ala Leu Leu Ser Pro Gly Val Leu Val Arg Thr Gly
1 5 10 15

His Thr Val Leu Thr Trp Gly Ile Thr Leu Val Leu Phe Leu His Asp 20 25 30

Thr Glu Leu Arg Gln Trp Glu Glu Gln Gly Glu Leu Leu Leu Pro Leu
35 40 45

Thr Phe Leu Leu Val Leu Gly Ser Leu Leu Tyr Leu Ala Val 50 55 60

Ser Leu Met Asp Pro Gly Tyr Val Asn Val Gln Pro Gln Pro Gln Glu 65 70 75 80

Glu Leu Lys Glu Glu Gln Thr Ala Met Val Pro Pro Ala Ile Pro Leu 85 90 95

Arg Arg Cys Arg Tyr Cys Leu Val Leu Gln Pro Leu Arg Ala Arg His 100 105 110

Cys Arg Glu Cys Arg Arg Cys Val Arg Arg Tyr Asp His His Cys Pro 115 120 125

Trp Met Glu Asn Cys Val Gly Glu Arg Asn His Pro Leu Phe Val Val
130 135 140

Tyr Leu Ala Leu Gln Leu Val Val Leu Leu Trp Gly Leu Tyr Leu Ala 145 150 155 160

Trp Ser Gly Leu Arg Phe Phe Gln Pro Trp Gly Leu Trp Leu Arg Ser

Ser Gly Leu Leu Phe Ala Thr Phe Leu Leu Leu Ser Leu Phe Ser Leu 180 185 190

Val Ala Ser Leu Leu Leu Val Ser His Leu Tyr Leu Val Ala Ser Asn

200 195 205 Thr Thr Trp Glu Phe Ile Ser Ser His Arg Ile Ala Tyr Leu Arg 220 215 Gln Arg Pro Ser Asn Pro Phe Asp Arg Gly Leu Thr Arg Asn Leu Ala 230 235 His Phe Phe Cys Gly Trp Pro Ser Gly Ser Trp Glu Thr Leu Trp Ala 250 Glu Glu Glu Glu Gly Ser Ser Pro Ala Val 260 265 <210> 64 <211> 62 <212> PRT <213> Homo sapiens <400> 64 Met Lys Ser Gln Ser Pro Leu Arg Ser Met Leu Leu Val Gly Gly Leu 10 Val Ser Val Leu Ala Glu His Leu Gln His Pro Gln Ser Arg Gln Pro 25 Pro Leu Ser His Leu Ser Ser His Leu Thr Trp Asp Ala Gln Val Glu 40 Leu Asp Arg Ile Phe Leu Ser Ile Arg Pro Pro Glu Val Pro 55 <210> 65 <211> 46 <212> PRT <213> Homo sapiens <400> 65 Met Asn Val Thr Val Thr Leu Pro Lys Tyr His Leu Ala Leu Ile Trp Leu Leu Phe His Phe Gly Trp Ala Leu Leu Ser Val Cys Ser Lys Thr Val Leu Met Asn Leu Ser Asn Val His Asn Ala Val Ile Gly 40 <210> 66 <211> 84 <212> PRT <213> Homo sapiens <400> 66 Met Tyr Leu Gly Arg Arg Trp Phe Phe Leu Tyr Leu Cys Pro Phe Pro Ser Ser Ala Leu Pro Thr Phe Cys Ala Leu Leu His Ala His Thr Ser 20 25 30

Phe Cys Met Ile Asn Gly Leu Gly His Ala Ala His Ser Leu Ala Tyr 35 40 45

Glu Thr Phe Thr Leu Ser Ala Glu Gly Ala Arg Asp Pro Pro Lys Ala 50 60

Thr Glu Cys Ser Ile Cys Ser Leu Pro Ser Phe Cys Ile Pro Gly Phe 65 70 75 80

Cys Ile Leu Phe

<210> 67

<211> 44

<212> PRT

<213> Homo sapiens

<400> 67

Met Gly Leu Phe Pro Lys Leu Leu Ser Leu Ile Phe Gln Ile Val Tyr 1 5 10 15

Phe Leu Pro Ser Ala Leu Glu Met Thr Val Ala Ser Pro Ser Cys His
20 25 30

Phe Cys Asp Ala Leu Glu Ser Leu Phe Phe Ser Asn 35

<210> 68

<211> 55

<212> PRT

<213> Homo sapiens

<400> 68

Met Gln Thr Cys Gln Ala Ile Lys Gly Ser Cys Leu Ser Val Ser Leu

1 10 15

Ile Leu Leu Cys Ala Ala Ser Thr Glu Gly Phe Arg Ala Pro Asp Leu 20 25 30

Phe Cys Val Leu Arg Lys Ser Lys Cys Leu Ala Arg Thr Gln Pro Phe
35 40 45

Phe Leu His Pro Glu Thr Ser

<210> 69

<211> 83

<212> PRT

<213> Homo sapiens

<220>

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<221> SITE
<222> (45)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (63)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (64)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (78)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 69
Met Gly His Phe Ala Pro Gly Val Phe His Leu Gly Ile Met Phe Thr
Gly Leu Ile Pro Val Val Val Cys Ser Ser Pro Ala Phe Leu Pro Val
                                 25
Ala Glu Tyr Leu Ile His Cys Val Gly Ile His His Xaa Leu Val Asp
                             40
Gly Thr Phe Gly Val Val Phe His Leu Leu Val Met Met Gly Xaa Xaa
                         55
Pro Gln Gln Thr Phe Val Leu Gln Ser Phe Ala Val Ala Xaa Gly Arg
                     70
Phe Phe Leu
<210> 70
<211> 434
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (381)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 70
Met Ala Leu Thr Ala Pro Ser Leu Ser Leu Asp Ala Arg Gln Leu Trp
Asp Ser Pro Glu Thr Ala Pro Ala Ala Arg Thr Pro Gln Ser Pro Ala
```

Pro Cys Val Leu Leu Arg Ala Gln Arg Ser Leu Ala Pro Glu Pro Lys
35 40 45

- Glu Pro Leu Ile Pro Ala Ser Pro Lys Ala Glu Pro Ile Trp Glu Leu 50 55 60
- Pro Thr Arg Ala Pro Arg Leu Ser Ile Gly Asp Leu Asp Phe Ser Asp 65 70 75 80
- Leu Gly Glu Asp Glu Asp Gln Asp Met Leu Asn Val Glu Ser Val Glu
 85 90 95
- Ala Gly Lys Asp Ile Pro Ala Pro Ser Pro Pro Leu Pro Leu Ser
 100 105 110
- Gly Val Pro Pro Pro Pro Pro Leu Pro Pro Pro Pro Pro Ile Lys Gly
 115 120 125
- Pro Phe Pro Pro Pro Pro Leu Pro Leu Ala Ala Pro Leu Pro His 130 135 140
- Ser Val Pro Asp Ser Ser Ala Leu Pro Thr Lys Arg Lys Thr Val Lys 145 150 155 160
- Leu Phe Trp Arg Glu Leu Lys Leu Ala Gly Gly His Gly Val Ser Ala 165 170 175
- Ser Arg Phe Gly Pro Cys Ala Thr Leu Trp Ala Ser Leu Asp Pro Val 180 185 190
- Ser Val Asp Thr Ala Arg Leu Glu His Leu Phe Glu Ser Arg Ala Lys 195 200 205
- Glu Val Leu Pro Ser Lys Lys Ala Gly Glu Gly Arg Arg Thr Met Thr 210 215 220
- Thr Val Leu Asp Pro Lys Arg Ser Asn Ala Ile Asn Ile Gly Leu Thr 225 230 235 240
- Thr Leu Pro Pro Val His Val Ile Lys Ala Ala Leu Leu Asn Phe Asp 245 250 . 255
- Glu Phe Ala Val Ser Lys Asp Gly Ile Glu Lys Leu Leu Thr Met Met 260 265 270
- Pro Thr Glu Glu Glu Arg Gln Lys Ile Glu Glu Ala Gln Leu Ala Asn 275 280 285
- Pro Asp Ile Pro Leu Gly Pro Ala Glu Asn Phe Leu Met Thr Leu Ala 290 295 300
- Ser Ile Gly Gly Leu Ala Ala Arg Leu Gln Leu Trp Ala Phe Lys Leu 305 310 315
- Asp Tyr Asp Ser Met Glu Arg Glu Ile Ala Glu Pro Leu Phe Asp Leu 325 330 335
- Lys Val Gly Met Glu Gln Leu Val Gln Asn Ala Thr Phe Arg Cys Ile 340 345 350

Leu Ala Thr Leu Leu Ala Val Gly Asn Phe Leu Asn Gly Ser Gln Ser 355 360 365

Ser Gly Phe Glu Leu Ser Tyr Leu Glu Lys Val Ser Xaa Val Lys Asp 370 375 380

Thr Val Arg Arg Gln Ser Leu Leu His His Leu Cys Ser Leu Val Leu 385 390 395 400

Gln Thr Arg Pro Glu Ser Ser Asp Leu Tyr Ser Glu Ile Pro Ala Leu 405 410 415

Thr Arg Cys Ala Lys Val Ser Thr Cys Gln Asn Gln Pro Arg Pro Asp 420 425 430

Lys Ala

<210> 71

<211> 43

<212> PRT

<213> Homo sapiens

<400> 71

Met Gly Asn Gln Lys Leu Leu Ser Leu Glu Val Leu Pro Gln Leu 1 5 10 15

Leu Leu Val Leu Ile Leu Met Pro Trp Phe Leu Leu Val Gly Lys Gly
20 25 30

His Ser Tyr His Ser Glu Glu Glu Lys Ser 35 40

<210> 72

<211> 322

<212> PRT

<213> Homo sapiens

<400> 72

Met Lys Tyr Ile Phe Ser Leu Leu Phe Phe Leu Leu Glu Gly Gly 1 5 10 15

Lys Thr Glu Gln Val Lys His Ser Glu Thr Tyr Cys Met Phe Gln Asp 20 25 30

Lys Lys Tyr Arg Val Gly Glu Arg Trp His Pro Tyr Leu Glu Pro Tyr
35 40 45

Gly Leu Val Tyr Cys Val Asn Cys Ile Cys Ser Glu Asn Gly Asn Val 50 60

Leu Cys Ser Arg Val Arg Cys Pro Asn Val His Cys Leu Ser Pro Val
65 70 75 80

His Ile Pro His Leu Cys Cys Pro Arg Cys Pro Glu Asp Ser Leu Pro

Pro Val Asn Asn Lys Val Thr Ser Lys Ser Cys Glu Tyr Asn Gly Thr
100 105 110

Thr Tyr Gln His Gly Glu Leu Phe Val Ala Glu Gly Leu Phe Gln Asn 115 120 125

Arg Gln Pro Asn Gln Cys Thr Gln Cys Ser Cys Ser Glu Gly Asn Val

Tyr Cys Gly Leu Lys Thr Cys Pro Lys Leu Thr Cys Ala Phe Pro Val 145 150 155 160

Ser Val Pro Asp Ser Cys Cys Arg Val Cys Arg Gly Asp Gly Glu Leu 165 170 175

Ser Trp Glu His Ser Asp Gly Asp Ile Phe Arg Gln Pro Ala Asn Arg 180 185 190

Glu Ala Arg His Ser Tyr His His Ser His Tyr Asp Pro Pro Pro Ser 195 200 205

Arg Gln Ala Gly Gly Leu Ser Arg Phe Pro Gly Ala Arg Ser His Arg 210 215 220

Gly Ala Leu Met Asp Ser Gln Gln Ala Ser Gly Thr Ile Val Gln Ile 225 230 235 240

Val Ile Asn Asn Lys His Lys His Gly Gln Val Cys Val Ser Asn Gly
245 250 255

Lys Thr Tyr Ser His Gly Glu Ser Trp His Pro Asn Leu Arg Ala Phe 260 265 270

Gly Ile Val Glu Cys Val Leu Cys Thr Cys Asn Val Thr Lys Gln Glu 275 280 285

Cys Lys Lys Ile His Cys Pro Asn Arg Tyr Pro Cys Lys Tyr Pro Gln 290 295 300

Lys Ile Asp Gly Lys Cys Cys Lys Val Cys Pro Gly Lys Lys Lys 305 310 315 320

Lys Lys

<210> 73

<211> 306

<212> PRT

<213> Homo sapiens

<400> 73

Met Lys Ala Leu Leu Leu Val Leu Pro Trp Leu Ser Pro Ala Asn 1 5 10 15

Tyr Ile Asp Asn Val Gly Asn Leu His Phe Leu Tyr Ser Glu Leu Cys

Lys Gly Ala Ser His Tyr Gly Leu Thr Lys Asp Arg Lys Arg Ser 40 45

Gln Asp Gly Cys Pro Asp Gly Cys Ala Ser Leu Thr Ala Thr Ala Pro 50 60

Ser Pro Glu Val Ser Ala Ala Ala Thr Ile Ser Leu Met Thr Asp Glu 65 70 75 80

Pro Gly Leu Asp Asn Pro Ala Tyr Val Ser Ser Ala Glu Asp Gly Gln 85 90 95

Pro Ala Ile Ser Pro Val Asp Ser Gly Arg Ser Asn Arg Thr Arg Ala

Arg Pro Phe Glu Arg Ser Thr Ile Arg Ser Arg Ser Phe Lys Ile 115 120 125

Asn Arg Ala Leu Ser Val Leu Arg Arg Thr Lys Ser Gly Ser Ala Val 130 135 140

Ala Asn His Ala Asp Gln Gly Arg Glu Asn Ser Glu Asn Thr Thr Ala 145 150 155 160

Pro Glu Val Phe Pro Arg Leu Tyr His Leu Ile Pro Asp Gly Glu Ile 165 170 175

Thr Ser Ile Lys Ile Asn Arg Val Asp Pro Ser Glu Ser Leu Ser Ile 180 185 190

Arg Leu Val Gly Gly Ser Glu Thr Pro Leu Val His Ile Ile Gln
195 200 205

His Ile Tyr Arg Asp Gly Val Ile Ala Arg Asp Gly Arg Leu Leu Pro 210 215 220

Gly Asp Ile Ile Leu Lys Val Asn Gly Met Asp Ile Ser Asn Val Pro 225 230 235 240

His Asn Tyr Ala Val Arg Leu Leu Arg Gln Pro Cys Gln Val Leu Trp
245 250 255

Leu Thr Val Met Arg Glu Gln Lys Phe Arg Ser Arg Asn Asn Gly Gln 260 265 270

Ala Pro Asp Ala Tyr Arg Pro Arg Asp Asp Ser Phe His Val Ile Leu 275 280 285

Asn Lys Ser Arg Pro Arg Gly Ala Ala Trp Asn Lys Thr Gly Ala Gln 290 295 300

Gly Gly 305

<210> 74 <211> 114 <212> PRT

<213> Homo sapiens

<400> 74

Met Val Thr Arg Ala Gly Ala Gly Thr Ala Val Ala Gly Ala Val Val 1 5 10 15

Val Ala Leu Leu Ser Ala Ala Leu Ala Leu Tyr Gly Pro Pro Leu Asp 20 25 30

Ala Val Leu Glu Arg Ala Phe Ser Leu Arg Lys Ala His Ser Ile Lys 35 40 45

Asp Met Glu Asn Thr Leu Gln Leu Val Arg Asn Ile Ile Pro Pro Leu 50 55 60

Ser Ser Thr Lys His Lys Gly Gln Asp Gly Arg Ile Gly Val Val Gly 65 70 75 80

Gly Cys Gln Glu Tyr Thr Gly Ala Pro Tyr Phe Ala Glu Ser Gln Leu 85 90 95

Ser Lys Trp Ala Gln Thr Cys Pro Thr Cys Ser Val Pro Val Arg Pro 100 105 110

His Leu

<210> 75

<211> 114

<212> PRT

<213> Homo sapiens

<400> 75

Met Val Thr Arg Ala Gly Ala Gly Thr Ala Val Ala Gly Ala Val Val 1 5 10 15

Val Ala Leu Leu Ser Ala Ala Leu Ala Leu Tyr Gly Pro Pro Leu Asp 20 25 30

Ala Val Leu Glu Arg Ala Phe Ser Leu Arg Lys Ala His Ser Ile Lys
35 40 45

Asp Met Glu Asn Thr Leu Gln Leu Val Arg Asn Ile Ile Pro Pro Leu 50 55 60

Ser Ser Thr Lys His Lys Gly Gln Asp Gly Arg Ile Gly Val Val Gly 65 70 75 80

Gly Cys Gln Glu Tyr Thr Gly Ala Pro Tyr Phe Ala Glu Ser Gln Leu 85 90

Ser Lys Trp Ala Gln Thr Cys Pro Thr Cys Ser Val Pro Val Arg Pro
100 105 110

His Leu

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<210> 76
<211> 85
<212> PRT
<213> Homo sapiens
<400> 76
Met Tyr Ala Cys Val Cys Arg Val Leu Gln Pro Gly Cys Gly Arg Val
Leu Val Cys Ala Arg Val Pro Ala Trp Leu Trp Val Cys Val Cys Val
Cys Val Cys Val Cys Val Leu Ala Ser Gly Ala Val Arg Pro
Leu Arg Val Gly Ala Leu Phe Ser Ala His Trp Lys Pro Ser Pro Phe
                        55
Ser Gln Met Pro Gly Arg Gly Gly Ala Ala Val Gly Thr His Leu Val
                                         75
Leu Leu Ser Asp Leu
<210> 77
<211> 154
<212> PRT
<213> Homo sapiens
<400> 77
Met Ala Thr Val Arg Ala Ser Leu Arg Gly Ala Leu Leu Leu Leu Leu
Ala Val Ala Gly Val Ala Glu Val Ala Gly Gly Leu Ala Pro Gly Ser
Ala Gly Ala Leu Cys Cys Asn His Ser Lys Asp Asn Gln Met Cys Arg
Asp Val Cys Glu Gln Ile Phe Ser Ser Lys Ser Glu Ser Arg Leu Lys
                         55
His Leu Leu Gln Arg Ala Pro Asp Tyr Cys Pro Glu Thr Met Val Glu
Ile Trp Asn Cys Met Asn Ser Ser Leu Pro Gly Val Phe Lys Lys Ser
Asp Gly Trp Val Gly Leu Gly Cys Cys Glu Leu Ala Ile Ala Leu Glu
```

Cys Arg Gln Ala Cys Lys Gln Ala Ser Ser Lys Asn Asp Ile Ser Lys

Val Cys Arg Lys Glu Tyr Glu Pro Val Leu Arg Tyr Phe Ser Val Leu

130 135 140

Pro Ser Leu Val Trp Ile Ser Ala Leu Pro 145 150

<210> 78

<211> 161

<212> PRT

<213> Homo sapiens

<400> 78

Met Ala Thr Val Arg Ala Ser Leu Arg Gly Ala Leu Leu Leu Leu 1 5 10 15

Ala Val Ala Gly Val Ala Glu Val Ala Gly Gly Leu Ala Pro Gly Ser 20 25 30

Ala Gly Ala Leu Cys Cys Asn His Ser Lys Asp Asn Gln Met Cys Arg 35 40 45

Asp Val Cys Glu Gln Ile Phe Ser Ser Lys Ser Glu Ser Arg Leu Lys
50 55 60

His Leu Leu Gln Arg Ala Pro Asp Tyr Cys Pro Glu Thr Met Val Glu 65 70 75 80

Ile Trp Asn Cys Met Asn Ser Ser Leu Pro Gly Val Phe Lys Lys Ser 85 90 95

Asp Gly Trp Val Gly Leu Gly Cys Cys Glu Leu Ala Ile Ala Leu Glu
100 105 110

Cys Arg Gln Ala Cys Ser Arg His Leu Gln Arg Met Ile Phe Pro Lys 115 120 125

Phe Ala Glu Lys Asn Met Ser Leu Ser Ser Val Ile Leu Val Cys Phe 130 140

Leu Leu Leu Ser Gly Phe Leu His Cys Pro Arg Lys Ser Ala Ser Met 145 150 155 160

Cys

<210> 79

<211> 51

<212> PRT

<213> Homo sapiens

<400> 79

Ala Val Val Pro Thr Trp Cys Ser Thr Val Leu Leu Thr Phe Val Pro 1 5 10 15

Thr Ala Arg Leu Val Ala Gly Leu Glu Asp Val Gln Val Tyr Asp Gly
20 25 30

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Glu Asp Ala Val Phe Ser Leu Asp Leu Ser Thr Ile Ile Gln Gly Thr
                            40
Trp Phe Pro
    50
<210> 80
<211> 40
<212> PRT
<213> Homo sapiens
<400> 80
Met Leu Phe Pro Leu Leu Ala Trp Pro His Leu Leu Ser Leu Trp Val
                                     10
Cys Leu Thr Ala Thr Ser Pro Ser Lys Pro Ser Ala Pro His Ser His
                                 25
Gln Met Asp Leu Cys Leu Leu His
         35
<210> 81
<211> 36
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (18)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 81
Arg Pro Arg Thr Arg Ala Pro Arg Gly Ala Arg Ser Ala Cys Thr Arg
Gly Xaa Arg Arg Arg Pro Val Pro Ser Leu Lys Val Leu Ser Pro Phe
Ala Val Val Gln
        35
<210> 82
<211> 489
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (18)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 82
Arg Pro Arg Thr Arg Ala Pro Arg Gly Ala Arg Ser Ala Cys Thr Arg
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- Gly Xaa Arg Arg Arg Pro Val Pro Ser Leu Lys Val Leu Ser Pro Phe 20 25 30
- Ala Val Val Gln Met Arg Lys Lys Trp Lys Met Gly Gly Met Lys Tyr 35 40 45
- Ile Phe Ser Leu Leu Phe Phe Leu Leu Glu Gly Gly Lys Thr Glu 50 55 60
- Gln Val Lys His Ser Glu Thr Tyr Cys Met Phe Gln Asp Lys Lys Tyr
 65 75 80
- Arg Val Gly Glu Arg Trp His Pro Tyr Leu Glu Pro Tyr Gly Leu Val
- Tyr Cys Val Asn Cys Ile Cys Ser Glu Asn Gly Asn Val Leu Cys Ser 100 105 110
- Arg Val Arg Cys Pro Asn Val His Cys Leu Ser Pro Val His Ile Pro 115 120 125
- His Leu Cys Cys Pro Arg Cys Pro Glu Asp Ser Leu Pro Pro Val Asn 130 135 140
- Asn Lys Val Thr Ser Lys Ser Cys Glu Tyr Asn Gly Thr Thr Tyr Gln 145 150 155 160
- His Gly Glu Leu Phe Val Ala Glu Gly Leu Phe Gln Asn Arg Gln Pro 165 170 175
- Asn Gln Cys Thr Gln Cys Ser Cys Ser Glu Gly Asn Val Tyr Cys Gly
 180 185 190
- Leu Lys Thr Cys Pro Lys Leu Thr Cys Ala Phe Pro Val Ser Val Pro 195 200 205
- Asp Ser Cys Cys Arg Val Cys Arg Gly Asp Gly Glu Leu Ser Trp Glu 210 215 220
- His Ser Asp Gly Asp Ile Phe Arg Gln Pro Ala Asn Arg Glu Ala Arg 225 230 235 240
- His Ser Tyr His Arg Ser His Tyr Asp Pro Pro Pro Ser Arg Gln Ala 245 250 255
- Gly Gly Leu Ser Arg Phe Pro Gly Ala Arg Ser His Arg Gly Ala Leu 260 265 270
- Met Asp Ser Gln Gln Ala Ser Gly Thr Ile Val Gln Ile Val Ile Asn 275 280 285
- Asn Lys His Gly Gln Val Cys Val Ser Asn Gly Lys Thr Tyr 290 295 300
- Ser His Gly Glu Ser Trp His Pro Asn Leu Arg Ala Phe Gly Ile Val 305 310 315 320
- Glu Cys Val Leu Cys Thr Cys Asn Val Thr Lys Gln Glu Cys Lys Lys

325 330 Ile His Cys Pro Asn Arg Tyr Pro Cys Lys Tyr Pro Gln Lys Ile Asp 345 Gly Lys Cys Cys Lys Val Cys Pro Glu Glu Leu Pro Gly Gln Ser Phe 360 Asp Asn Lys Gly Tyr Phe Cys Gly Glu Glu Thr Met Pro Val Tyr Glu Ser Val Phe Met Glu Asp Gly Glu Thr Thr Arg Lys Ile Ala Leu Glu Thr Glu Arg Pro Pro Gln Val Glu Val His Val Trp Thr Ile Arg Lys 405 410 Gly Ile Leu Gln His Phe His Ile Glu Lys Ile Ser Lys Arg Met Phe 425 Glu Glu Leu Pro His Phe Lys Leu Val Thr Arg Thr Thr Leu Ser Gln 440 Trp Lys Ile Phe Thr Glu Gly Glu Ala Gln Ile Ser Gln Met Cys Ser 455 Ser Arg Val Cys Arg Thr Glu Leu Glu Asp Leu Val Lys Val Leu Tyr 470 475 Leu Glu Arg Ser Glu Lys Gly His Cys 485 <210> 83 <211> 20 <212> PRT <213> Homo sapiens Glu Thr Ser Arg Val Ala Glu Pro Gly Cys Ala Arg Ser Pro Asp Gly Pro Asn Arg Pro <210> 84 <211> 83 <212> PRT <213> Homo sapiens <400> 84 Gln Leu Ala Ala Gly Ala Thr Asp Cys Lys Phe Leu Gly Pro Ala Glu His Leu Thr Phe Thr Pro Ala Ala Arg Ala Arg Trp Leu Ala Pro Arg Val Arg Ala Pro Gly Leu Leu Asp Ser Leu Tyr Gly Thr Val Arg Arg 35 40 45

Phe Leu Ser Val Val Gln Leu Asn Pro Phe Pro Ser Glu Leu Val Lys
50 55 60

Ala Leu Leu Asn Glu Leu Ala Ser Val Lys Val Asn Glu Val Val Arg
65 70 75 80

Tyr Glu Ala

<210> 85

<211> 257

<212> PRT

<213> Homo sapiens

<400> 85

Val Cys Ala Phe Val Thr Asn Gln Arg Thr His Glu Gln Met Gly Pro 1 5 10 15

Ser Ile Glu Ala Met Pro Glu Thr Leu Leu Ser Leu Trp Gly Leu Val 20 25 30

Ser Asp Val Pro Gln Glu Leu Gln Ala Val Ala Gln Gln Phe Ser Leu 35 40 45

Pro Gln Glu Gln Val Ser Glu Glu Leu Asp Gly Val Gly Val Ser Ile 50 55 60

Gly Ser Ala Ile His Thr Gln Leu Arg Ser Ser Val Tyr Pro Leu Leu 65 70 75 80

Ala Ala Val Gly Ser Leu Gly Gln Val Leu Gln Val Ser Val His His
85 90 95

Leu Gln Thr Leu Asn Ala Thr Val Val Glu Leu Gln Ala Gly Gln Gln 100 105 110

Asp Leu Glu Pro Ala Ile Arg Glu His Arg Asp Arg Leu Leu Glu Leu 115 120 125

Leu Gln Glu Ala Arg Cys Gln Gly Asp Cys Ala Gly Ala Leu Ser Trp 130 135 140

Ala Arg Thr Leu Glu Leu Gly Ala Asp Phe Ser Gln Val Pro Ser Val
145 150 155 160

Asp His Val Leu His Gln Leu Lys Gly Val Pro Glu Ala Asn Phe Ser 165 170 175

Ser Met Val Gln Glu Glu Asn Ser Thr Phe Asn Ala Leu Pro Ala Leu 180 185 190

Ala Ala Met Gln Thr Ser Ser Val Val Gln Glu Leu Lys Lys Ala Val 195 200 205 Ala Gln Gln Pro Glu Gly Val Arg Thr Leu Ala Glu Gly Phe Pro Gly 210 215 220

Leu Glu Ala Ala Ser Arg Trp Ala Gln Ala Leu Gln Glu Val Glu 225 230 235 240

Ser Ser Arg Pro Tyr Leu Gln Glu Val Gln Arg Tyr Glu Thr Tyr Arg 245 250 255

Trp

<210> 86

<211> 287

<212> PRT

<213> Homo sapiens

<400> 86

Val Gly Gly Asn Val Gln Thr Leu Val Cys Arg Ser Trp Glu Asn Gly
1 5 10 15

Glu Leu Phe Glu Phe Ala Asp Thr Pro Gly Asn Leu Pro Pro Ser Met
20 25 30

Asn Leu Ser Gln Leu Leu Gly Leu Arg Lys Asn Ile Ser Ile His Gln
35 40 45

Ala Tyr Gln Gln Cys Lys Glu Gly Ala Ala Leu Trp Thr Val Leu Gln 50 55 60

Leu Asn Asp Ser Tyr Asp Leu Glu Glu His Leu Asp Ile Asn Gln Tyr 65 70 75 80

Thr Asn Lys Leu Arg Gln Glu Leu Gln Ser Leu Lys Val Asp Thr Gln 85 90 95

Ser Leu Asp Leu Leu Ser Ser Ala Ala Arg Arg Asp Leu Glu Ala Leu 100 105 110

Gln Ser Ser Gly Leu Gln Arg Ile His Tyr Pro Asp Phe Leu Val Gln 115 120 125

Ile Gln Arg Pro Val Val Lys Thr Ser Met Glu Gln Leu Ala Gln Glu 130 135 140

Leu Gln Gly Leu Ala Gln Ala Gln Asp Asn Ser Val Leu Gly Gln Arg 145 150 155 160

Leu Gln Glu Ala Gln Gly Leu Arg Asn Leu His Gln Glu Lys Val
165 170 175

Val Pro Gln Gln Ser Leu Val Ala Lys Leu Asn Leu Ser Val Arg Ala 180 185 190

Leu Glu Ser Ser Ala Pro Asn Leu Gln Leu Glu Thr Ser Asp Val Leu 195 200 205

Ala Asn Val Thr Tyr Leu Lys Gly Glu Leu Pro Ala Trp Ala Ala Arg 210 215 220

Ile Leu Arg Asn Val Ser Glu Cys Phe Leu Ala Arg Glu Met Gly Tyr 225 230 235 240

Phe Ser Gln Tyr Val Ala Trp Val Arg Glu Glu Val Thr Gln Arg Ile
245 250 255

Ala Thr Cys Gln Pro Leu Ser Gly Ala Leu Asp Asn Ser Arg Val Ile
260 265 270

Leu Cys Asp Met Met Ala Asp Pro Trp Asn Ala Phe Trp Phe Cys 275 280 285

<210> 87

<211> 40

<212> PRT

<213> Homo sapiens

<400> 87

Lys Gln Leu His Phe Lys Met Gln Met Thr Val Gly Glu Lys Glu Tyr 1 5 10 15

Pro Val Cys Cys Gln Leu Ile Leu Phe Ser Leu Cys Cys Phe Ile Trp
20 25 30

Glu Glu Leu Phe Leu Tyr Ile Lys 35 40

<210> 88

<211> 70

<212> PRT

<213> Homo sapiens

<400> 88

Ile Ser Lys Lys Asp Pro Gly Glu Ser Leu Gly Met Thr Val Ala Gly

Gly Ala Ser His Arg Glu Trp Asp Leu Pro Ile Tyr Val Ile Ser Val 20 25 30

Glu Pro Gly Gly Val Ile Ser Arg Asp Gly Arg Ile Lys Thr Gly Asp 35 40 45

Ile Leu Leu Asn Val Asp Gly Val Arg Thr Asp Arg Gly Gln Pro Gly 50 55 60

Val Arg Gln Trp His Tyr 65 70

<210> 89

<211> 38

<212> PRT

<213> Homo sapiens

<400> 89

Ile Ser Lys Lys Asp Pro Gly Glu Ser Leu Gly Met Thr Val Ala Gly
1 5 10 15

Gly Ala Ser His Arg Glu Trp Asp Leu Pro Ile Tyr Val Ile Ser Val 20 25 30

Glu Pro Gly Gly Val Ile 35

<210> 90

<211> 32

<212> PRT

<213> Homo sapiens

<400> 90

Gly Val Arg Thr Asp Arg Gly Gln Pro Gly Val Arg Gln Trp His Tyr 20 25 30

<210> 91

<211> 122

<212> PRT

<213> Homo sapiens

<400> 91

Phe Ser Thr Lys Val Gly Pro Glu Glu Gln Leu Gly Ile Lys Leu Val

Arg Lys Val Asp Glu Pro Gly Val Phe Ile Phe Asn Val Leu Asp Gly
20 25 30

Gly Val Ala Tyr Arg His Gly Gln Leu Glu Glu Asn Asp Arg Val Leu 35 40 45

Ala Ile Asn Gly His Asp Leu Arg Tyr Gly Ser Pro Glu Ser Ala Ala 50 55 60

His Leu Ile Gln Ala Ser Glu Arg Arg Val His Leu Val Val Ser Arg 65 70 75 80

Gln Val Arg Gln Arg Ser Pro Asp Ile Phe Gln Glu Ala Ala Leu Glu 85 90 95

Gln Gln Trp Gln Leu Val Pro Arg Ala Arg Gly Glu Gln His Ser 100 105 110

Gln Ala Pro Pro Ser Tyr Asn Tyr Leu Ser 115 120

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<210> 92
<211> 41
<212> PRT
<213> Homo sapiens
Phe Ser Thr Lys Val Gly Pro Glu Glu Gln Leu Gly Ile Lys Leu Val
Arg Lys Val Asp Glu Pro Gly Val Phe Ile Phe Asn Val Leu Asp Gly
                                 25
Gly Val Ala Tyr Arg His Gly Gln Leu
<210> 93
<211> 41
<212> PRT
<213> Homo sapiens
<400> 93
Glu Glu Asn Asp Arg Val Leu Ala Ile Asn Gly His Asp Leu Arg Tyr
Gly Ser Pro Glu Ser Ala Ala His Leu Ile Gln Ala Ser Glu Arg Arg
                                 25
Val His Leu Val Val Ser Arg Gln Val
<210> 94
<211> 40
<212> PRT
<213> Homo sapiens
Arg Gln Arg Ser Pro Asp Ile Phe Gln Glu Ala Ala Leu Glu Gln Gln
Trp Gln Leu Val Pro Arg Ala Arg Gly Glu Glu Gln His Ser Gln Ala
Pro Pro Ser Tyr Asn Tyr Leu Ser
<210> 95
<211> 162
<212> PRT
<213> Homo sapiens
<400> 95
Gln Arg Ser Ala Arg Ser Glu Ala Val Ala Leu Leu Lys Arg Thr Ser
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Ser Ser Ile Val Leu Lys Ala Leu Glu Val Lys Glu Tyr Glu Pro Gln 20 25 30

Glu Asp Cys Ser Ser Pro Ala Ala Leu Asp Ser Asn His Asn Met Ala 35 40 45

Pro Pro Ser Asp Trp Ser Pro Ser Trp Val Met Trp Leu Glu Leu Pro 50 55 60

Arg Cys Leu Tyr Asn Cys Lys Asp Ile Val Leu Arg Arg Asn Thr Ala 65 70 75 80

Gly Ser Leu Gly Phe Cys Ile Val Gly Gly Tyr Glu Glu Tyr Asn Gly 85 90 95

Asn Lys Pro Phe Phe Ile Lys Ser Ile Val Glu Gly Thr Pro Ala Tyr 100 105 110

Asn Asp Gly Arg Ile Arg Cys Gly Asp Ile Leu Leu Ala Val Asn Gly
115 120 125

Arg Ser Thr Ser Gly Met Ile His Ala Cys Leu Ala Arg Leu Lys 130 135 140

Glu Leu Lys Gly Arg Ile Thr Leu Thr Ile Val Ser Trp Pro Gly Thr 145 150 155 160

Phe Leu

<210> 96

<211> 36

<212> PRT

<213> Homo sapiens

<400> 96

Gln Arg Ser Ala Arg Ser Glu Ala Val Ala Leu Leu Lys Arg Thr Ser

Ser Ser Ile Val Leu Lys Ala Leu Glu Val Lys Glu Tyr Glu Pro Gln
20 25 30

Glu Asp Cys Ser 35

<210> 97

<211> 41

<212> PRT

<213> Homo sapiens

<400> 97

Ser Pro Ala Ala Leu Asp Ser Asn His Asn Met Ala Pro Pro Ser Asp 1 5 10 15

Trp Ser Pro Ser Trp Val Met Trp Leu Glu Leu Pro Arg Cys Leu Tyr
20 25 30

Asn Cys Lys Asp Ile Val Leu Arg Arg <210> 98 <211> 43 <212> PRT <213> Homo sapiens Asn Thr Ala Gly Ser Leu Gly Phe Cys Ile Val Gly Gly Tyr Glu Glu Tyr Asn Gly Asn Lys Pro Phe Phe Ile Lys Ser Ile Val Glu Gly Thr 25 Pro Ala Tyr Asn Asp Gly Arg Ile Arg Cys Gly 35 <210> 99 <211> 42 <212> PRT <213> Homo sapiens <400> 99 Asp Ile Leu Leu Ala Val Asn Gly Arg Ser Thr Ser Gly Met Ile His Ala Cys Leu Ala Arg Leu Leu Lys Glu Leu Lys Gly Arg Ile Thr Leu Thr Ile Val Ser Trp Pro Gly Thr Phe Leu <210> 100 <211> 209 <212> PRT <213> Homo sapiens <400> 100 Met Thr Val Ala Gly Gly Ala Ser His Arg Glu Trp Asp Leu Pro Ile Tyr Val Ile Ser Val Glu Pro Gly Gly Val Ile Ser Arg Asp Gly Arg Ile Lys Thr Gly Asp Ile Leu Leu Asn Val Asp Gly Val Glu Leu Thr

Glu Val Ser Arg Ser Glu Ala Val Ala Leu Leu Lys Arg Thr Ser Ser

Ser Ile Val Leu Lys Ala Leu Glu Val Lys Glu Tyr Glu Pro Gln Glu

Asp Cys Ser Ser Pro Ala Ala Leu Asp Ser Asn His Asn Met Ala Pro 85 90 95

Pro Ser Asp Trp Ser Pro Ser Trp Val Met Trp Leu Glu Leu Pro Arg
100 105 110

Cys Leu Tyr Asn Cys Lys Asp Ile Val Leu Arg Arg Asn Thr Ala Gly
115 120 125

Ser Leu Gly Phe Cys Ile Val Gly Gly Tyr Glu Glu Tyr Asn Gly Asn 130 140

Lys Pro Phe Phe Ile Lys Ser Ile Val Glu Gly Thr Pro Ala Tyr Asn 145 150 155 160

Asp Gly Arg Ile Arg Cys Gly Asp Ile Leu Leu Ala Val Asn Gly Arg 165 170 175

Ser Thr Ser Gly Met Ile His Ala Cys Leu Ala Arg Leu Leu Lys Glu 180 185 190

Leu Lys Gly Arg Ile Thr Leu Thr Ile Val Ser Trp Pro Gly Thr Phe 195 200 205

Leu

<210> 101

<211> 242

<212> PRT

<213> Homo sapiens

<400> 101

Met Ala Thr Ser Thr Ile Thr Ser Arg Arg Leu Met Ser Gly Phe Leu

1 10 15

Phe Leu Pro Val Ser Ser Phe Ser Met Ser Phe Phe Phe Ser Thr
20 25 30

Cys Ser Val Thr Leu Ile Thr Ser Phe Cys Ile Phe Pro Val Ser Val
35 40 45

Ser Phe Phe Ile Ala Val Glu Asn Thr Trp Cys Arg Thr Val Ile Thr 50 55 60

Leu Pro Leu Ser Leu Ser Gly Ala Phe Ser Phe Ser Val Pro Ile Thr 65 70 75 80

Val Ser Leu Ser Val Ser Val Ser Leu Ser Ile Ser Val Phe Leu Ser 85 90 95

Ser Gly Ile Ile Val Pro Leu Leu Ala Gly Val His Lys Thr Arg Pro

Arg Arg Ser Arg Thr Arg Lys Met Gly Lys Gly Asn Ile Ala Ile Trp
115 120 125

Lys Cys Thr Cys Arg Thr Thr Ile Ile Thr Arg Gly Met Ser Thr Phe 130 135 140

Tyr Cys Trp Tyr Lys Arg Trp Arg Trp Ser Ala Trp Trp Arg Arg Lys
145 150 155 160

Thr Arg Trp Trp Asn Gln Arg Trp Ser Ser Ala Asp Ser Arg Arg Arg 165 170 175

Trp Lys Lys Trp Arg Arg Trp Lys Val Ser Gly Arg Ser Ser Trp Arg 180 185 190

Glu Lys Arg Arg Trp Phe Ala Lys Ile Val Val Tyr Phe Ser Arg 195 200 205

Ser Phe Arg Lys Asp Leu Tyr Val Ala Val Leu Ile Cys Pro Ser Pro 210 215 220

Ala Phe Tyr Ser Ala Asp Ser Tyr Ser Leu Thr Asp Asn Ile Asn Cys 225 230 235 240

Pro Arg

<210> 102

<211> 520

<212> PRT

<213> Homo sapiens

<400> 102

Met Ser Ala Gly Glu Val Glu Arg Leu Val Ser Glu Leu Ser Gly Gly
1 5 10 15

Thr Gly Gly Asp Glu Glu Glu Glu Trp Leu Tyr Gly Asp Glu Asn Glu
20 25 30

Val Glu Arg Pro Glu Glu Glu Asn Ala Ser Ala Asn Pro Pro Ser Gly
35 40 45

Ile Glu Asp Glu Thr Ala Glu Asn Gly Leu Pro Lys Pro Lys Val Thr 50 55 60

Glu Thr Glu Asp Asp Ser Asp Ser Asp Ser Asp Asp Asp Glu Asp Asp 65 70 75 80

Val His Val Thr Ile Gly Asp Ile Lys Thr Gly Ala Pro Gln Tyr Gly 85 90 95

Ser Tyr Gly Thr Ala Pro Val Asn Leu Asn Ile Lys Thr Gly Gly Arg

Val Tyr Gly Thr Thr Gly Thr Lys Val Lys Gly Val Asp Leu Asp Ala 115 120 125

Pro Gly Ser Ile Asn Gly Val Pro Leu Leu Glu Val Asp Leu Asp Ser 130 135 140

- Phe Glu Asp Lys Pro Trp Arg Lys Pro Gly Ala Asp Leu Ser Asp Tyr 145 150 155
- Phe Asn Tyr Gly Phe Asn Glu Asp Thr Trp Lys Ala Tyr Cys Glu Lys
 165 170 175
- Gln Lys Arg Ile Arg Met Gly Leu Glu Val Ile Pro Val Thr Ser Thr 180 185 190
- Thr Asn Lys Ile Thr Val Gln Gln Gly Arg Thr Gly Asn Ser Glu Lys 195 200 205
- Glu Thr Ala Leu Pro Ser Thr Lys Ala Glu Phe Thr Ser Pro Pro Ser 210 215 220
- Leu Phe Lys Thr Gly Leu Pro Pro Ser Arg Arg Leu Pro Gly Ala Ile 225 230 235 240
- Asp Val Ile Gly Gln Thr Ile Thr Ile Ser Arg Val Glu Gly Arg Arg 245 250 255
- Arg Ala Asn Glu Asn Ser Asn Ile Gln Val Leu Ser Glu Arg Ser Ala 260 265 270
- Thr Glu Val Asp Asn Asn Phe Ser Lys Pro Pro Pro Phe Phe Pro Pro 275 280 285
- Gly Ala Pro Pro Thr His Leu Pro Pro Pro Pro Phe Leu Pro Pro Pro 290 295 300
- Pro Thr Val Ser Thr Ala Pro Pro Leu Ile Pro Pro Pro Gly Phe Pro 305 310 315 320
- Pro Pro Pro Gly Ala Pro Pro Pro Ser Leu Ile Pro Thr Ile Glu Ser
- Gly His Ser Ser Gly Tyr Asp Ser Arg Ser Ala Arg Ala Phe Pro Tyr 340 345 350
- Gly Asn Val Ala Phe Pro His Leu Pro Gly Ser Ala Pro Ser Trp Pro 355 360 365
- Ser Leu Val Asp Thr Ser Lys Gln Trp Asp Tyr Tyr Ala Arg Arg Glu 370 375 380
- Lys Asp Arg Asp Arg Glu Arg Asp Arg Glu Arg Asp Arg 385 390 395 400
- Arg Asp Arg Glu Arg Glu Arg Glu Arg Glu Arg Glu Arg Asp 405 410 415
- His Ser Pro Thr Pro Ser Val Phe Asn Ser Asp Glu Glu Arg Tyr Arg
 420 425 430
- Tyr Arg Glu Tyr Ala Glu Arg Gly Tyr Glu Arg His Arg Ala Ser Arg 435 440 445
- Glu Lys Glu Glu Arg His Arg Glu Arg Arg His Arg Glu Lys Glu Glu

	450					455					460				
Thr 465	Arg	His	Lys	Ser	Ser 470	Arg	Ser	Asn	Ser	Arg 475	Arg	Arg	His	Glu	Ser 480
Glu	Glu	Gly	Asp	Ser 485	His	Arg	Arg	His	Lys 490	His	Lys	Lys	Ser	Lys 495	Arg
Ser	Lys	Glu	Gly 500	Lys	Glu	Ala	Gly	Ser 505	Glu	Pro	Ala	Pro	Glu 510	Gln	Glu
Ser	Thr	Glu 515	Ala	Thr	Pro	Ala	Glu 520								
<210> 103 <211> 205 <212> PRT <213> Homo sapiens															
)> 10 Ile		Val	Leu 5	His	Val	His	Phe	His 10	Met	Ala	Met	Leu	Pro 15	Phe
Pro	Ile	Phe	Leu 20	Val	Leu	Leu	Leu	Arg 25	Gly	Leu	Val	Leu	Trp 30	Thr	Pro
Ala	Ser	Ser 35	Gly	Thr	Ile	Met	Pro 40	Glu	Glu	Arg	Lys	Thr 45	Glu	Ile	Glu
Arg	Glu 50	Thr	Glu	Thr	Glu	Ser 55	Glu	Thr	Val	Ile	Gly 60	Thr	Glu	Lys	Glu
Asn 65	Ala	Pro	Glu	Arg	Glu 70	Arg	Gly	Ser	Val	Ile 75	Thr	Val	Leu	His	Gln 80
Val	Phe	Ser	Thr	Ala 85	Met	Lys	Asn	Asp	Thr 90	Asp	Thr	Gly	Asn	Met 95	Gln
Lys	Glu	Val	Met 100	Ser	Val	Thr	Glu	Gln 105	Val	Glu	Lys	Lys	Lys 110	Asn	Asp
Ile	Glu	Lys 115	Asp	Asp	Thr	Gly	Arg 120	Lys	Arg	Lys	Pro	Asp 125	Ile	Ser	Leu
Leu	Glu 130	Val	Ile	Val	qaA	Val 135	Ala	Met	Lys	Val	Lys 140	Lys	Glu	Ile	Val
Thr 145	Gly	Asp	Thr	Asn	Thr 150	Lys	Asn	Leu	Lys	Glu 155	Ala	Lys	Lys	Glu	Lys 160
Lys	Arg	Ala	Val	Ser 165	Leu	Pro	Leu	Asn	Arg 170	Arg	Ala	Pro	Lys	Leu 175	His
Leu	Gln	Asn	Arg	His	Gly	Phe	Gly	Leu	Leu	Cys	Ile	Leu	Val	Pro	Glu

Val Asp Thr Ile Asn Leu Val Ile Phe Leu Asp Asn Ala

195

<210> 104

<211> 26

<212> PRT

<213> Homo sapiens

<400> 104

His Ala Ser Ala His Gly Pro Arg Pro Ser Val Arg Thr Gly Leu Pro
1 5 10 15

200

Ser Val Gly Arg Gln Ala Ala Gly Ala Ala 20 25

<210> 105

<211> 494

<212> PRT

<213> Homo sapiens

<400> 105

His Ala Ser Ala His Gly Pro Arg Pro Ser Val Arg Thr Gly Leu Pro
1 5 10 15

Ser Val Gly Arg Gln Ala Ala Gly Ala Ala Met Gly Arg Gly Trp Gly
20 25 30

Phe Leu Phe Gly Leu Leu Gly Ala Val Trp Leu Leu Ser Ser Gly His
35 40 45

Gly Glu Glu Gln Pro Pro Glu Thr Ala Ala Gln Arg Cys Phe Cys Gln 50 60

Val Ser Gly Tyr Leu Asp Asp Cys Thr Cys Asp Val Glu Thr Ile Asp 65 70 75 80

Arg Phe Asn Asn Tyr Arg Leu Phe Pro Arg Leu Gln Lys Leu Leu Glu 85 90 95

Ser Asp Tyr Phe Arg Tyr Tyr Lys Val Asn Leu Lys Arg Pro Cys Pro
100 105 110

Phe Trp Asn Asp Ile Ser Gln Cys Gly Arg Arg Asp Cys Ala Val Lys
115 120 125

Pro Cys Gln Ser Asp Glu Val Pro Asp Gly Ile Lys Ser Ala Ser Tyr 130 135 140

Lys Tyr Ser Glu Glu Ala Asn Asn Leu Ile Glu Glu Cys Glu Gln Ala 145 150 155 160

Glu Arg Leu Gly Ala Val Asp Glu Ser Leu Ser Glu Glu Thr Gln Lys 165 170 175

Ala Val Leu Gln Trp Thr Lys His Asp Asp Ser Ser Asp Asn Phe Cys
180 185 190

- Glu Ala Asp Asp Ile Gln Ser Pro Glu Ala Glu Tyr Val Asp Leu Leu 195 200 205
- Leu Asn Pro Glu Arg Tyr Thr Gly Tyr Lys Gly Pro Asp Ala Trp Lys 210 215 220
- Ile Trp Asn Val Ile Tyr Glu Glu Asn Cys Phe Lys Pro Gln Thr Ile 225 230 235 240
- Lys Arg Pro Leu Asn Pro Leu Ala Ser Gly Gln Gly Thr Ser Glu Glu 245 250 255
- Asn Thr Phe Tyr Ser Trp Leu Glu Gly Leu Cys Val Glu Lys Arg Ala 260 265 270
- Phe Tyr Arg Leu Ile Ser Gly Leu His Ala Ser Ile Asn Val His Leu 275 280 285
- Ser Ala Arg Tyr Leu Leu Gln Glu Thr Trp Leu Glu Lys Lys Trp Gly
 290 295 300
- His Asn Ile Thr Glu Phe Gln Gln Arg Phe Asp Gly Ile Leu Thr Glu 305 310 315 320
- Gly Glu Gly Pro Arg Arg Leu Lys Asn Leu Tyr Phe Leu Tyr Leu Ile 325 330 335
- Glu Leu Arg Ala Leu Ser Lys Val Leu Pro Phe Phe Glu Arg Pro Asp 340 345 350
- Phe Gln Leu Phe Thr Gly Asn Lys Ile Gln Asp Glu Glu Asn Lys Met 355 360 365
- Leu Leu Glu Ile Leu His Glu Ile Lys Ser Phe Pro Leu His Phe 370 375 380
- Asp Glu Asn Ser Phe Phe Ala Gly Asp Lys Lys Glu Ala His Lys Leu 385 390 395 400
- Lys Glu Asp Phe Arg Leu His Phe Arg Asn Ile Ser Arg Ile Met Asp 405 410 415
- Cys Val Gly Cys Phe Lys Cys Arg Leu Trp Gly Lys Leu Gln Thr Gln 420 425 430
- Gly Leu Gly Thr Ala Leu Lys Ile Leu Phe Ser Glu Lys Leu Ile Ala 435 440 445
- Asn Met Pro Glu Ser Gly Pro Ser Tyr Glu Phe His Leu Thr Arg Gln 450 460
- Glu Ile Val Ser Leu Phe Asn Ala Phe Gly Arg Ile Ser Thr Ser Val 465 470 475 480
- Lys Glu Leu Glu Asn Phe Arg Asn Leu Leu Gln Asn Ile His

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<210> 106
<211> 24
<212> PRT
<213> Homo sapiens
<400> 106
Cys Cys Arg Asn Ser Ala Arg Gly Gln Ser Gly Leu Ala Asp Glu Val
Arg Ser Ile Pro Phe Gly Pro Gly
             20
<210> 107
<211> 289
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (144)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (246)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (252)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 107
Ser Thr Phe Asp Lys Gly Tyr Gly Lys Tyr Phe Ala Ala Gly Glu Lys
Tyr His Thr Ser Ser Val Phe His Lys Ala Gln Arg Ala Arg Trp Lys
Asn Arg Arg Ser Trp Arg Leu Ser Gly Val His Trp Ser Pro Ile Phe
Cys Arg Ile Ser Ala Leu Lys Val Gly Ala Asp Leu Ser His Val Phe
Cys Ala Ser Ala Ala Ala Pro Val Ile Lys Ala Tyr Ser Pro Glu Leu
Ile Val His Pro Val Leu Asp Ser Pro Asn Ala Val His Glu Val Glu
Lys Trp Leu Pro Arg Leu His Ala Leu Val Val Gly Pro Gly Leu Gly
Arg Asp Ala Leu Leu Arg Asn Val Gln Gly Ile Leu Glu Val Ser
        115
                            120
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Lys Ala Arg Asp Ile Pro Val Val Ile Asp Ala Asp Gly Leu Trp Xaa 130 135 140

Val Ala Gln Gln Pro Ala Leu Ile His Gly Tyr Arg Lys Ala Val Leu 145 150 155 160

Thr Pro Asn His Val Glu Phe Ser Arg Leu Tyr Asp Ala Val Leu Arg
165 170 175

Gly Pro Met Asp Ser Asp Asp Ser His Gly Ser Val Leu Arg Leu Ser 180 185 190

Gln Ala Leu Gly Asn Val Thr Val Val Gln Lys Gly Glu Arg Asp Ile 195 200 205

Leu Ser Asn Gly Gln Gln Val Leu Val Cys Ser Gln Glu Gly Ser Ser 210 215 220

Ala Gly Val Glu Gly Lys Gly Thr Ser Cys Arg Ala Pro Trp Ala Ser 225 230 235 240

Trp Tyr Thr Gly Arg Xaa Leu Leu Asp His Arg Xaa Gln Met Gly Pro 245 250 255

Ala Leu Ser Trp Trp Pro Arg Leu Ala Pro Ala Leu Ser Pro Gly Ser 260 265 270

Ala Thr Thr Lys Pro Ser Arg Ser Thr Val Ala Pro Pro Pro Pro Pro 275 280 285

Thr

<210> 108

<211> 33

<212> PRT

<213> Homo sapiens

<400> 108

Ser Thr Phe Asp Lys Gly Tyr Gly Lys Tyr Phe Ala Ala Gly Glu Lys 1 5 10

Tyr His Thr Ser Ser Val Phe His Lys Ala Gln Arg Ala Arg Trp Lys
20 25 30

Asn

<210> 109

<211> 36

<212> PRT

<213> Homo sapiens

<400> 109

Arg Arg Ser Trp Arg Leu Ser Gly Val His Trp Ser Pro Ile Phe Cys
1 10 15

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Arg Ile Ser Ala Leu Lys Val Gly Ala Asp Leu Ser His Val Phe Cys
                                 25
Ala Ser Ala Ala
        35
<210> 110
<211> 36
<212> PRT
<213> Homo sapiens
<400> 110
Ala Pro Val Ile Lys Ala Tyr Ser Pro Glu Leu Ile Val His Pro Val
Leu Asp Ser Pro Asn Ala Val His Glu Val Glu Lys Trp Leu Pro Arg
             20
                                 25
Leu His Ala Leu
       35
<210> 111
<211> 36
<212> PRT
<213> Homo sapiens
<400> 111
Val Val Gly Pro Gly Leu Gly Arg Asp Ala Leu Leu Arg Asn Val
Gln Gly Ile Leu Glu Val Ser Lys Ala Arg Asp Ile Pro Val Val Ile
Asp Ala Asp Gly
        35
<210> 112
<211> 36
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (3)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 112
Leu Trp Xaa Val Ala Gln Gln Pro Ala Leu Ile His Gly Tyr Arg Lys
Ala Val Leu Thr Pro Asn His Val Glu Phe Ser Arg Leu Tyr Asp Ala
Val Leu Arg Gly
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<210> 113
<211> 36
<212> PRT
<213> Homo sapiens
<400> 113
Pro Met Asp Ser Asp Ser His Gly Ser Val Leu Arg Leu Ser Gln
Ala Leu Gly Asn Val Thr Val Val Gln Lys Gly Glu Arg Asp Ile Leu
Ser Asn Gly Gln
         35
<210> 114
<211> 36
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (33)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 114
Gln Val Leu Val Cys Ser Gln Glu Gly Ser Ser Ala Gly Val Glu Gly
Lys Gly Thr Ser Cys Arg Ala Pro Trp Ala Ser Trp Tyr Thr Gly Arg
Xaa Leu Leu Asp
         35
<210> 115
<211> 40
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (3)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 115
His Arg Xaa Gln Met Gly Pro Ala Leu Ser Trp Trp Pro Arg Leu Ala
Pro Ala Leu Ser Pro Gly Ser Ala Thr Thr Lys Pro Ser Arg Ser Thr
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Val Ala Pro Pro Pro Pro Pro Thr

<210> 116

<211> 138

<212> PRT

<213> Homo sapiens

35

<400> 116

Cys Cys Arg Asn Ser Ala Arg Gly Gln Ser Gly Leu Ala Asp Glu Val 1 5 10 15

Arg Ser Ile Pro Phe Gly Pro Gly Met Val Thr Arg Ala Gly Ala Gly 20 25 30

Thr Ala Val Ala Gly Ala Val Val Ala Leu Leu Ser Ala Ala Leu
35 40 45

Ala Leu Tyr Gly Pro Pro Leu Asp Ala Val Leu Glu Arg Ala Phe Ser 50 55 60

Leu Arg Lys Ala His Ser Ile Lys Asp Met Glu Asn Thr Leu Gln Leu 65 70 75 80

Val Arg Asn Ile Ile Pro Pro Leu Ser Ser Thr Lys His Lys Gly Gln 85 90 95

Asp Gly Arg Ile Gly Val Val Gly Gly Cys Gln Glu Tyr Thr Gly Ala
100 105 110

Pro Tyr Phe Ala Glu Ser Gln Leu Ser Lys Trp Ala Gln Thr Cys Pro 115 120 125

Thr Cys Ser Val Pro Val Arg Pro His Leu 130 135

<210> 117

<211> 366

<212> PRT

<213> Homo sapiens

<400> 117

Ala Arg Gly Gln Ser Gly Leu Ala Asp Glu Val Arg Ser Ile Pro Phe 1 5 10 15

Gly Pro Gly Met Val Thr Arg Ala Gly Ala Gly Thr Ala Val Ala Gly
20 25 30

Ala Val Val Ala Leu Leu Ser Ala Ala Leu Ala Leu Tyr Gly Pro
35 40 45

Pro Leu Asp Ala Val Leu Glu Arg Ala Phe Ser Leu Arg Lys Ala His 50 55 60

Ser Ile Lys Asp Met Glu Asn Thr Leu Gln Leu Val Arg Asn Ile Ile 65 70 75 80

Pro Pro Leu Ser Ser Thr Lys His Lys Gly Gln Asp Gly Arg Ile Gly 85 90 95

Val Val Gly Gly Cys Gln Glu Tyr Thr Gly Ala Pro Tyr Phe Ala Ala 100 105 110

Ile Ser Ala Leu Lys Val Gly Ala Asp Leu Ser His Val Phe Cys Ala 115 120 125

Ser Ala Ala Pro Val Ile Lys Ala Tyr Ser Pro Glu Leu Ile Val 130 135 140

His Pro Val Leu Asp Ser Pro Asn Ala Val His Glu Val Glu Lys Trp
145 150 155 160

Leu Pro Arg Leu His Ala Leu Val Val Gly Pro Gly Leu Gly Arg Asp
165 170 175

Asp Ala Leu Leu Arg Asn Val Gln Gly Ile Leu Glu Val Ser Lys Ala 180 185 190

Arg Asp Ile Pro Val Val Ile Asp Ala Asp Gly Leu Trp Leu Val Ala 195 200 205

Gln Gln Pro Ala Leu Ile His Gly Tyr Arg Lys Ala Val Leu Thr Pro 210 215 220

Asn His Val Glu Phe Ser Arg Leu Tyr Asp Ala Val Leu Arg Gly Pro 225 230 235 240

Met Asp Ser Asp Ser His Gly Ser Val Leu Arg Leu Ser Gln Ala \$245\$ \$250\$

Leu Gly Asn Val Thr Val Val Gln Lys Gly Glu Arg Asp Ile Leu Ser 260 265 270

Asn Gly Gln Gln Val Leu Val Cys Ser Gln Glu Gly Ser Ser Arg Arg 275 280 285

Cys Gly Gly Gln Gly Asp Leu Leu Ser Gly Ser Leu Gly Val Leu Val 290 295 300

His Trp Ala Leu Leu Ala Gly Pro Gln Lys Thr Asn Gly Ser Ser Pro 305 310 315 320

Leu Leu Val Ala Ala Phe Gly Ala Cys Ser Leu Thr Arg Gln Cys Asn 325 330 335

His Gln Ala Phe Gln Lys His Gly Arg Ser Thr Thr Thr Ser Asp Met 340 345 350

Ile Ala Glu Val Gly Ala Ala Phe Ser Lys Leu Phe Glu Thr 355 360 365

<210> 118

<211> 12

<212> PRT

<213> Homo sapiens <400> 118 Gly Thr Ser Ala Ala Leu Glu Pro Pro Gly Pro Asp <210> 119 <211> 83 <212> PRT <213> Homo sapiens <400> 119 Arg Thr Arg Gln Glu Arg Met Leu Phe Ser Val Ala Leu Ala Glu Met Lys Trp Ala Arg Phe Val Ala Val Met Gln Gly His His Thr Asn Cys 25 Arg Glu Tyr Cys Gln Ala Ile Phe Arg Thr Asp Ser Ser Pro Gly Pro 40 Ser Gln Ile Lys Ala Val Glu Asn Tyr Cys Ala Ser Ile Ser Pro Gln 55 Leu Ile His Cys Val Asn Asn Tyr Thr Ser Ile Leu Ser Asn Glu Glu 70 75 Pro Asn Gly <210> 120 <211> 34 <212> PRT <213> Homo sapiens <400> 120 Arg Thr Arg Gln Glu Arg Met Leu Phe Ser Val Ala Leu Ala Glu Met Lys Trp Ala Arg Phe Val Ala Val Met Gln Gly His His Thr Asn Cys 20 Arq Glu <210> 121 <211> 26 <212> PRT <213> Homo sapiens <400> 121 Tyr Cys Gln Ala Ile Phe Arg Thr Asp Ser Ser Pro Gly Pro Ser Gln Ile Lys Ala Val Glu Asn Tyr Cys Ala Ser

25

<212> PRT

<213> Homo sapiens

<400> 122

Ile Ser Pro Gln Leu Ile His Cys Val Asn Asn Tyr Thr Ser Ile Leu
1 10 15

Ser Asn Glu Glu Pro Asn Gly

20

<210> 123

<211> 32

<212> PRT

<213> Homo sapiens

<400> 123

His Glu Arg Cys Pro Ala Pro Val Pro Ser Val Asn Pro Leu Ser Leu 1 5 10 15

Trp Cys Trp Phe Arg Ser Arg Leu Gln Gln Asn Asp Leu Gly Thr Ser 20 25 30

<210> 124

<211> 59

<212> PRT

<213> Homo sapiens

<400> 124

His Glu Pro Ser Gln Leu Pro Arg Pro His Ser Ser Thr Gly Trp Ser

1 10 15

Gly Arg Lys Trp Ala Leu Lys Thr Gly Phe Ser Ala Ser Ala Ser Arg 20 25 30

Lys Pro Glu Pro Trp Arg Cys Arg Ala Thr Val Cys Pro Pro Arg Val 35 40 45

Thr Thr Ala Ser Ala Ser Ala Gln Ser Ala Asp

<210> 125

<211> 487

<212> PRT

<213> Homo sapiens

<400> 125

Ala Arg Ala Glu Pro Ala Pro Glu Thr Pro Phe Ile Tyr Arg Leu Glu

1				5					10					15	
Arg	Gln	Glu	Val 20	Gly	Ser	Glu	Asp	Trp 25	Ile	Gln	Cys	Phe	Ser 30	Ile	Glu
Lys	Ala	Gly 35	Ala	Val	Glu	Val	Pro 40	Gly	Asp	Cys	Val	Pro 45	Ser	Glu	Gly
Asp	Tyr 50	Arg	Phe	Arg	Ile	Cys 55	Thr	Val	Ser	Gly	His 60	Gly	Arg	Ser	Pro
His 65	Val	Val	Phe	His	Gly 70	Ser	Ala	His	Leu	Val 75	Pro	Thr	Ala	Arg	Leu 80
Val	Ala	Gly	Leu	Glu 85	Asp	Val	Gln	Val	Tyr 90	Asp	Gly	Glu	Asp	Ala 95	Val
Phe	Ser	Leu	Asp 100	Leu	Ser	Thr	Ile	Ile 105	Gln	Gly	Thr	Trp	Phe 110	Leu	Asn
Gly	Glu	Glu 115	Leu	Lys	Ser	Asn	Glu 120	Pro	Glu	Gly	Gln	Val 125	Glu	Pro	Gly
Ala	Leu 130	Arg	Tyr	Arg	Ile	Glu 135	Gln	Lys	Gly	Leu	Gln 140	His	Arg	Leu	Ile
Leu 145	His	Ala	Val	Lys	His 150	Gln	Asp	Ser	Gly	Ala 155	Leu	Val	Gly	Phe	Ser 160
Cys	Pro	Gly	Val	Gln 165	Asp	Ser	Ala	Ala	Leu 170	Thr	Ile	Gln	Glu	Ser 175	Pro
Val	His	Ile	Leu 180	Ser	Pro	Gln	Asp	Lys 185	Val	Ser	Leu	Thr	Phe 190	Thr	Thr
Ser	Glu	Arg 195	Va1	Val	Leu	Thr	Cys 200	Glu	Leu	Ser	Arg	Val 205	Asp	Phe	Pro
Ala	Thr 210	Trp	Tyr	Lys	Asp	Gly 215	Gln	Lys	Val	Glu	Glu 220	Ser	Glu	Leu	Leu
Val 225	Val	Lys	Met	Asp	Gly 230	Arg	Lys	His	Arg	Leu 235	Ile	Leu	Pro	Glu	Ala 240
Lys	Val	Gln	Asp	ser 245	Gly	Glu	Phe	Glu	Cys 250	Arg	Thr	Glu	Gly	Val 255	Ser
Ala	Phe	Phe	Gly 260	Val	Thr	Val	Gln	Asp 265	Pro	Pro	Val	His	Ile 270	Val	Asp
Pro	Arg	Glu 275	His	Val	Phe	Val	His 280	Ala	Ile	Thr	Ser	Glu 285	Cys	Val	Met
Leu	Ala 290	Cys	Glu	Val	Asp	Arg 295	Glu	Asp	Ala	Pro	Val 300	Arg	Trp	Tyr	Lys
Asp 305	Gly	Gln	Glu	Val	Glu 310	Glu	Ser	Asp	Phe	Val 315	Val	Leu	Glu	Asn	Glu 320

Gly Pro His Arg Arg Leu Val Leu Pro Ala Thr His Pro Ser Asp Gly 325 330 335

Gly Glu Phe Gln Cys Val Ala Gly Asp Glu Cys Ala Tyr Phe Thr Val 340 345 350

Thr Ile Thr Asp Val Ser Ser Trp Ile Val Tyr Pro Ser Gly Lys Val 355 360 365

Tyr Val Ala Ala Val Arg Leu Glu Arg Val Val Leu Thr Cys Glu Leu 370 375 380

Cys Arg Pro Trp Ala Glu Val Arg Trp Thr Lys Asp Gly Glu Glu Val 385 390 395 400

Val Glu Ser Pro Ala Leu Leu Gln Lys Glu Asp Thr Val Arg Arg 405 410 415

Leu Val Leu Pro Ala Val Gln Leu Glu Asp Ser Gly Glu Tyr Leu Cys 420 425 430

Glu Ile Asp Asp Glu Ser Ala Ser Phe Thr Val Thr Val Thr Glu Ser 435 440 445

Tyr Gln Ser Gln Asp Ser Ser Asn Asn Pro Glu Leu Cys Val Leu 450 455 460

Leu Lys Lys Pro Lys Thr Arg Arg Leu Trp Ser Arg Phe Pro Pro Trp 465 470 475 480

Arg Arg Thr Ala Gly Thr Glu 485

<210> 126

<211> 37

<212> PRT

<213> Homo sapiens

<400> 126

Ala Arg Ala Glu Pro Ala Pro Glu Thr Pro Phe Ile Tyr Arg Leu Glu
1 5 10 15

Arg Gln Glu Val Gly Ser Glu Asp Trp Ile Gln Cys Phe Ser Ile Glu 20 25 30

Lys Ala Gly Ala Val 35

<210> 127

<211> 37

<212> PRT

<213> Homo sapiens

<400> 127

Glu Val Pro Gly Asp Cys Val Pro Ser Glu Gly Asp Tyr Arg Phe Arg

15 Ile Cys Thr Val Ser Gly His Gly Arg Ser Pro His Val Val Phe His 25 Gly Ser Ala His Leu 35 <210> 128 <211> 37 <212> PRT <213> Homo sapiens <400> 128 Val Pro Thr Ala Arg Leu Val Ala Gly Leu Glu Asp Val Gln Val Tyr Asp Gly Glu Asp Ala Val Phe Ser Leu Asp Leu Ser Thr Ile Ile Gln Gly Thr Trp Phe Leu 35 <210> 129 <211> 37 <212> PRT <213> Homo sapiens <400> 129 Asn Gly Glu Glu Leu Lys Ser Asn Glu Pro Glu Gly Gln Val Glu Pro Gly Ala Leu Arg Tyr Arg Ile Glu Gln Lys Gly Leu Gln His Arg Leu Ile Leu His Ala Val 35 <210> 130 <211> 37 <212> PRT <213> Homo sapiens <400> 130 Lys His Gln Asp Ser Gly Ala Leu Val Gly Phe Ser Cys Pro Gly Val Gln Asp Ser Ala Ala Leu Thr Ile Gln Glu Ser Pro Val His Ile Leu Ser Pro Gln Asp Lys 35

<210> 131

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<211> 37
<212> PRT
<213> Homo sapiens
<400> 131
Val Ser Leu Thr Phe Thr Thr Ser Glu Arg Val Val Leu Thr Cys Glu
                 5
Leu Ser Arg Val Asp Phe Pro Ala Thr Trp Tyr Lys Asp Gly Gln Lys
                                 25
Val Glu Glu Ser Glu
         35
<210> 132
<211> 37
<212> PRT
<213> Homo sapiens
<400> 132
Leu Leu Val Val Lys Met Asp Gly Arg Lys His Arg Leu Ile Leu Pro
Glu Ala Lys Val Gln Asp Ser Gly Glu Phe Glu Cys Arg Thr Glu Gly
                                 25
Val Ser Ala Phe Phe
        35
<210> 133
<211> 37
<212> PRT
<213> Homo sapiens
<400> 133
Gly Val Thr Val Gln Asp Pro Pro Val His Ile Val Asp Pro Arg Glu
His Val Phe Val His Ala Ile Thr Ser Glu Cys Val Met Leu Ala Cys
Glu Val Asp Arg Glu
<210> 134
<211> 37
<212> PRT
<213> Homo sapiens
<400> 134
Asp Ala Pro Val Arg Trp Tyr Lys Asp Gly Gln Glu Val Glu Glu Ser
Asp Phe Val Val Leu Glu Asn Glu Gly Pro His Arg Arg Leu Val Leu
```

Pro Ala Thr His Pro 35 <210> 135 <211> 37 <212> PRT <213> Homo sapiens Ser Asp Gly Gly Glu Phe Gln Cys Val Ala Gly Asp Glu Cys Ala Tyr Phe Thr Val Thr Ile Thr Asp Val Ser Ser Trp Ile Val Tyr Pro Ser 25 Gly Lys Val Tyr Val 35 <210> 136 <211> 37 <212> PRT <213> Homo sapiens <400> 136 Ala Ala Val Arg Leu Glu Arg Val Val Leu Thr Cys Glu Leu Cys Arg Pro Trp Ala Glu Val Arg Trp Thr Lys Asp Gly Glu Glu Val Val Glu Ser Pro Ala Leu Leu 35 <210> 137 <211> 37 <212> PRT <213> Homo sapiens Leu Gln Lys Glu Asp Thr Val Arg Arg Leu Val Leu Pro Ala Val Gln Leu Glu Asp Ser Gly Glu Tyr Leu Cys Glu Ile Asp Asp Glu Ser Ala Ser Phe Thr Val Thr 35 <210> 138 <211> 43 <212> PRT <213> Homo sapiens

<400> 138

Val Thr Glu Ser Tyr Gln Ser Gln Asp Ser Ser Asn Asn Pro Glu

1 10 15

Leu Cys Val Leu Leu Lys Lys Pro Lys Thr Arg Arg Leu Trp Ser Arg
20 25 30

Phe Pro Pro Trp Arg Arg Thr Ala Gly Thr Glu 35 40

<210> 139

<211> 510

<212> PRT

<213> Homo sapiens

<400> 139

His Glu Ser Glu Tyr Thr Thr Ser Pro Lys Ser Ser Val Leu Cys Pro 1 5 10 15

Lys Leu Pro Val Pro Ala Ser Ala Pro Ile Pro Phe Phe His Arg Cys 20 25 30

Ala Pro Val Asn Ile Ser Cys Tyr Ala Lys Phe Ala Glu Ala Leu Ile 35 40 45

Thr Phe Val Ser Asp Asn Ser Val Leu His Arg Leu Ile Ser Gly Val 50 60

Met Thr Ser Lys Glu Ile Ile Leu Gly Leu Cys Leu Leu Ser Leu Val
65 70 75 80

Leu Ser Met Ile Leu Met Val Ile Ile Arg Tyr Ile Ser Arg Val Leu 85 90 95

Val Trp Ile Leu Thr Ile Leu Val Ile Leu Gly Ser Leu Gly Gly Thr
100 105 110

Gly Val Leu Trp Trp Pro Tyr Ala Lys Gln Arg Arg Ser Pro Lys Glu 115 120 125

Thr Val Thr Pro Glu Gln Leu Gln Ile Ala Glu Asp Asn Leu Arg Ala 130 135 140

Leu Leu Ile Tyr Ala Ile Ser Ala Thr Val Phe Thr Val Ile Leu Phe 145 150 155 160

Leu Ile Met Leu Val Met Arg Lys Arg Val Ala Leu Thr Ile Ala Leu 165 170 175

Phe His Val Ala Gly Lys Val Phe Ile His Leu Pro Leu Leu Val Phe
180 185 190

Gln Pro Phe Trp Thr Phe Phe Ala Leu Val Leu Phe Trp Val Tyr Trp
195 200 205

Ile Met Thr Leu Leu Phe Leu Gly Thr Thr Gly Ser Pro Val Gln Asn 210 215 220

Glu Gln Gly Phe Val Glu Phe Lys Ile Ser Gly Pro Leu Gln Tyr Met 225 230 235 240

Trp Trp Tyr His Val Val Gly Leu Ile Trp Ile Ser Glu Phe Ile Leu 245 250 255

Ala Cys Gln Gln Met Thr Val Ala Gly Ala Val Val Thr Tyr Tyr Phe
260 265 270

Thr Arg Asp Lys Arg Asn Leu Pro Phe Thr Pro Ile Leu Ala Ser Val 275 280 285

Asn Arg Leu Ile Arg Tyr His Leu Gly Thr Val Ala Lys Gly Ser Phe 290 295 300

Ile Ile Thr Leu Val Lys Ile Pro Arg Met Ile Leu Met Tyr Ile His 305 310 315

Ser Gln Leu Lys Gly Lys Glu Asn Ala Cys Ala Arg Cys Val Leu Lys 325 330 335

Ser Cys Ile Cys Cys Leu Trp Cys Leu Glu Lys Cys Leu Asn Tyr Leu 340 345 350

Asn Gln Asn Ala Tyr Thr Ala Thr Ala Ile Asn Ser Thr Asn Phe Cys 355 360 365

Thr Ser Ala Lys Asp Ala Phe Val Ile Leu Val Glu Asn Ala Leu Arg 370 375 380

Val Ala Thr Ile Asn Thr Val Gly Asp Phe Met Leu Phe Leu Gly Lys 385 390 395 400

Val Leu Ile Val Cys Ser Thr Gly Leu Ala Gly Ile Met Leu Leu Asn 405 410 415

Tyr Gln Gln Asp Tyr Thr Val Trp Val Leu Pro Leu Ile Ile Val Cys 420 425 430

Leu Phe Ala Phe Leu Asp Ala His Cys Phe Leu Ser Ile Tyr Glu Met 435 440 445

Val Val Asp Val Leu Phe Leu Cys Phe Ala Ile Asp Thr Lys Tyr Asn 450 455 460

Asp Gly Ser Pro Gly Arg Glu Phe Tyr Met Asp Lys Val Leu Met Glu 465 470 475 480

Phe Val Glu Asn Ser Arg Lys Ala Met Lys Glu Ala Gly Lys Gly Gly 485 490 495

Val Ala Asp Ser Arg Glu Leu Lys Pro Met Leu Lys Lys Arg 500 505 510

<210> 140 <211> 17

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<212> PRT
<213> Homo sapiens
<400> 140
Arg Leu Ser Ala Val Gly Ala Val Pro Phe Thr Arg Pro Asp Ala Gly
                                    10
Val
<210> 141
<211> 7
<212> PRT
<213> Homo sapiens
<400> 141
Val Gly Pro Arg Ala Glu Ala
<210> 142
<211> 25
<212> PRT
<213> Homo sapiens
<400> 142
Gly Thr Arg Arg Ser Trp Gly Met Cys Arg Ala Thr Ala Gly Trp Ser
Pro Ala Glu Pro Pro Leu His Leu Trp
             20
<210> 143
<211> 267
<212> PRT
<213> Homo sapiens
<400> 143
His Glu Lys Glu Leu Gly Asp Val Gln Gly His Gly Arg Val Val Thr
Ser Arg Ala Ala Pro Pro Pro Val Asp Glu Glu Pro Glu Ser Ser Glu
Val Asp Ala Ala Gly Arg Trp Pro Gly Val Cys Val Ser Arg Thr Ser
Pro Thr Pro Pro Glu Ser Ala Thr Thr Val Lys Ser Leu Ile Lys Ser
Phe Asp Leu Gly Arg Pro Gly Gly Ala Gly Gln Asn Ile Ser Val His
Lys Thr Pro Arg Ser Pro Leu Ser Gly Ile Pro Val Arg Thr Ala Pro
```

Ala Ala Ala Val Ser Pro Met Gln Arg His Ser Thr Tyr Ser Ser Val

Arg Pro Ala Ser Arg Gly Val Thr Gln Arg Leu Asp Leu Pro Asp Leu 115 120 125

Pro Leu Ser Asp Ile Leu Lys Gly Arg Thr Glu Thr Leu Lys Pro Asp 130 140

Pro His Leu Arg Lys Ser Pro Ser Leu Glu Ser Leu Ser Arg Pro Pro 145 150 155 160

Ser Leu Gly Phe Gly Asp Thr Arg Leu Leu Ser Ala Ser Thr Arg Ala 165 170 175

Trp Lys Pro Gln Ser Lys Leu Ser Val Glu Arg Lys Asp Pro Leu Ala 180 185 190

Ala Leu Ala Arg Glu Tyr Gly Gly Ser Lys Arg Asn Ala Leu Leu Lys 195 200 205

Trp Cys Gln Lys Lys Thr Gln Gly Tyr Ala Lys Arg Asn Leu Leu Leu 210 215 220

Ala Phe Glu Ala Ala Glu Ser Val Gly Ile Lys Pro Ser Leu Glu Leu 225 230 235 240

Ser Glu Met Leu Tyr Thr Asp Arg Pro Asp Trp Gln Ser Val Met Gln
245 250 255

Tyr Val Ala Gln Ile Tyr Lys Tyr Phe Glu Thr 260 265

<210> 144

<211> 42

<212> PRT

<213> Homo sapiens

<400> 144

His Glu Lys Glu Leu Gly Asp Val Gln Gly His Gly Arg Val Val Thr

Ser Arg Ala Ala Pro Pro Pro Val Asp Glu Glu Pro Glu Ser Ser Glu 20 25 30

Val Asp Ala Ala Gly Arg Trp Pro Gly Val

<210> 145

<211> 42

<212> PRT

<213> Homo sapiens

<400> 145

Cys Val Ser Arg Thr Ser Pro Thr Pro Pro Glu Ser Ala Thr Thr Val

```
Lys Ser Leu Ile Lys Ser Phe Asp Leu Gly Arg Pro Gly Gly Ala Gly
Gln Asn Ile Ser Val His Lys Thr Pro Arg
        35
<210> 146
<211> 42
<212> PRT
<213> Homo sapiens
<400> 146
Ser Pro Leu Ser Gly Ile Pro Val Arg Thr Ala Pro Ala Ala Ala Val
Ser Pro Met Gln Arg His Ser Thr Tyr Ser Ser Val Arg Pro Ala Ser
             20
                                 25
Arg Gly Val Thr Gln Arg Leu Asp Leu Pro
        35
<210> 147
<211> 42
<212> PRT
<213> Homo sapiens
<400> 147
Asp Leu Pro Leu Ser Asp Ile Leu Lys Gly Arg Thr Glu Thr Leu Lys
                                    10
Pro Asp Pro His Leu Arg Lys Ser Pro Ser Leu Glu Ser Leu Ser Arg
Pro Pro Ser Leu Gly Phe Gly Asp Thr Arg
<210> 148
<211> 42
<212> PRT
<213> Homo sapiens
<400> 148
Leu Leu Ser Ala Ser Thr Arg Ala Trp Lys Pro Gln Ser Lys Leu Ser
Val Glu Arg Lys Asp Pro Leu Ala Ala Leu Ala Arg Glu Tyr Gly Gly
Ser Lys Arg Asn Ala Leu Leu Lys Trp Cys
```

property of

<210> 149 <211> 57

```
<212> PRT
<213> Homo sapiens
<400> 149
Gln Lys Lys Thr Gln Gly Tyr Ala Lys Arg Asn Leu Leu Leu Ala Phe
                                    10
Glu Ala Ala Glu Ser Val Gly Ile Lys Pro Ser Leu Glu Leu Ser Glu
            20
Met Leu Tyr Thr Asp Arg Pro Asp Trp Gln Ser Val Met Gln Tyr Val
Ala Gln Ile Tyr Lys Tyr Phe Glu Thr
<210> 150
<211> 19
<212> PRT
<213> Homo sapiens
<400> 150
Ser Val Ser Lys Leu Pro Ala Asn Gly Lys Asn Val Asp Asp Val Ile
                                     1.0
Arg Asn Gln
<210> 151
<211> 138
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (110)
<223> Xaa equals any of the naturally occurring L-amino acids
Thr Ser Met Thr Leu Phe Arg Ala Asp Thr Val Lys Asn Ile Glu Gly
Glu Leu Thr Gln Ser Ala Arg Leu Gly Cys Gly Gly Cys Leu Gly
Gly Trp Leu Gln Phe His Leu Thr Val Ser Ser Phe Ser Gly Phe Glu
Val Arg Gln Leu His Ala Gly Gly Ala Arg Lys Ala Glu Ser Arg Gln
Gly Ser Asp Thr Gly Glu Arg Ala Cys Asp Leu Leu Ala Asp Thr Asn
Pro Val Ala Arg Gly His His Phe Gln Gly Cys Trp Glu Gly Pro Gln
```

CONTRACTOR OF STREET

Leu Trp His

35

```
Ser Arg Val Ser Ala Ser Leu Trp His Gly His Ser Gly Xaa Pro Ser
            100
                                105
Leu His Ala Pro Pro Thr Ser Ala Ser His Pro Phe His Phe Leu Pro
                            120
Thr Thr Met His Leu His Ser Glu Ser Ser
    130
                       135
<210> 152
<211> 35
<212> PRT
<213> Homo sapiens
Thr Ser Met Thr Leu Phe Arg Ala Asp Thr Val Lys Asn Ile Glu Gly
                 5
Glu Leu Thr Gln Ser Ala Arg Leu Gly Cys Gly Gly Cys Leu Gly
                                 25
Gly Trp Leu
         35
<210> 153
<211> 35
<212> PRT
<213> Homo sapiens
Gln Phe His Leu Thr Val Ser Ser Phe Ser Gly Phe Glu Val Arg Gln
                5
Leu His Ala Gly Gly Ala Arg Lys Ala Glu Ser Arg Gln Gly Ser Asp
                                 25
Thr Gly Glu
         35
<210> 154
<211> 35
<212> PRT
<213> Homo sapiens
Arg Ala Cys Asp Leu Leu Ala Asp Thr Asn Pro Val Ala Arg Gly His
His Phe Gln Gly Cys Trp Glu Gly Pro Gln Ser Arg Val Ser Ala Ser
```

```
<210> 155
<211> 33
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (5)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 155
Gly His Ser Gly Xaa Pro Ser Leu His Ala Pro Pro Thr Ser Ala Ser
                                     10
His Pro Phe His Phe Leu Pro Thr Thr Met His Leu His Ser Glu Ser
                                 25
Ser
<210> 156
<211> 107
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (43)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (53)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 156
Glu Arg Ala Ser Ala Trp Pro Gly His Ser Pro Phe Ser Cys Thr Leu
Arg His Pro Lys Thr Leu Ala Val Ser Pro Ala Pro Val Tyr Leu Leu
Ser Ser Ser Ala Leu Phe Leu Pro Leu Thr Xaa Leu Pro Gly Ile Leu
                              40
Ser Gln Pro Glu Xaa Asn Pro Asn Arg Asn Glu Met Leu Ser Gly Asn
Leu Thr Lys Glu Ala Gln Ser His Phe Val Leu Pro Ser Pro His Ile
                                         75
Pro Arg Thr Thr Ala Tyr Phe Lys Arg Thr Gln Thr Ile His Leu Tyr
Lys Gly Thr Ala Arg Lys Arg Ser Arg Gln Arg
```

```
<210> 157
<211> 35
<212> PRT
<213> Homo sapiens
<400> 157
Glu Arg Ala Ser Ala Trp Pro Gly His Ser Pro Phe Ser Cys Thr Leu
                                     10
Arg His Pro Lys Thr Leu Ala Val Ser Pro Ala Pro Val Tyr Leu Leu
                                 25
                                                     30
Ser Ser Ser
        35
<210> 158
<211> 35
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (8)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (18)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 158
Ala Leu Phe Leu Pro Leu Thr Xaa Leu Pro Gly Ile Leu Ser Gln Pro
                                     10
Glu Xaa Asn Pro Asn Arg Asn Glu Met Leu Ser Gly Asn Leu Thr Lys
             20
Glu Ala Gln
<210> 159
<211> 37
<212> PRT
<213> Homo sapiens
<400> 159
Ser His Phe Val Leu Pro Ser Pro His Ile Pro Arq Thr Thr Ala Tyr
Phe Lys Arg Thr Gln Thr Ile His Leu Tyr Lys Gly Thr Ala Arg Lys
Arg Ser Arg Gln Arg
         35
```

```
<210> 160
```

<211> 47

<212> PRT

<213> Homo sapiens

<400> 160

Lys Val Pro Asn Pro Leu Val Val Thr Ser Ile His Pro Thr Leu Ala 1 5 10 15

Gln Leu Gln Ile Ala Thr Arg Ser His Ser Ser Ser Cys Cys Leu Tyr
20 25 30

Arg Phe Ser Asn Ser Gly His Phe Ile Ser Met Glu Ser Tyr Asn $$\,^{35}$

<210> 161

<211> 218

<212> PRT

<213> Homo sapiens

<400> 161

Gly Pro Ser Trp Pro Leu Trp Pro Arg Ser Ser Leu Gly Pro Cys Leu 1 5 10 15

Val Tyr Arg Val Trp Gly Asp Ser Met Cys Thr Pro Leu Leu Ser Gln
20 25 30

Val Asp Phe Glu Gln Leu Thr Glu Asn Leu Gly Gln Leu Glu Arg Arg 35 40 45

Ser Arg Ala Ala Glu Glu Ser Leu Arg Thr Trp Pro Ser Met Ser Trp 50 55 60

Pro Gln Pro Cys Val Pro Ala Ser Pro Thr Ser Trp Thr Ser Val Pro 65 70 75 80

Ala Arg Val Ala Met Leu Arg Ile Val His Arg Arg Val Cys Asn Arg 85 90 95

Phe His Ala Phe Leu Leu Tyr Leu Gly Tyr Thr Pro Gln Ala Arg 100 105 110

Glu Val Arg Ile Met Gln Phe Cys His Thr Leu Arg Glu Phe Ala Leu 115 120 125

Glu Tyr Arg Thr Cys Arg Glu Arg Val Leu Gln Gln Gln Gln Lys Gln 130 140

Ala Thr Tyr Arg Glu Arg Asn Lys Thr Arg Gly Arg Met Ile Thr Glu 145 150 155

Val Gly Ala Leu Pro Gly Leu Ser Leu Asp Cys His Leu Leu Gly Phe 165 170 175

Leu Arg Ser Ser Gln Leu Thr Leu Leu Ser Pro Asp Arg Glu Val

<210> 165

```
180
                                185
                                                    190
Leu Arg Cys Gly Trp Gly Ser Pro Gln Gln Pro Leu Cys Pro Ser Ser
                    200
                                               205
Ser Glu Gln Arg Ala Arg Pro Gly Arg Cys
   210
                        215
<210> 162
<211> 36
<212> PRT
<213> Homo sapiens
<400> 162
Gly Pro Ser Trp Pro Leu Trp Pro Arg Ser Ser Leu Gly Pro Cys Leu
                 5
                                     10
Val Tyr Arg Val Trp Gly Asp Ser Met Cys Thr Pro Leu Leu Ser Gln
                                 25
Val Asp Phe Glu
        35
<210> 163
<211> 36
<212> PRT
<213> Homo sapiens
Gln Leu Thr Glu Asn Leu Gly Gln Leu Glu Arg Arg Ser Arg Ala Ala
Glu Glu Ser Leu Arg Thr Trp Pro Ser Met Ser Trp Pro Gln Pro Cys
                                 25
Val Pro Ala Ser
         35
<210> 164
<211> 36
<212> PRT
<213> Homo sapiens
<400> 164
Pro Thr Ser Trp Thr Ser Val Pro Ala Arg Val Ala Met Leu Arg Ile
Val His Arg Arg Val Cys Asn Arg Phe His Ala Phe Leu Leu Tyr Leu
                                 25
Gly Tyr Thr Pro
         35
```

- 17/ -men

<211> 36

```
<212> PRT
<213> Homo sapiens
<400> 165
Gln Ala Ala Arg Glu Val Arg Ile Met Gln Phe Cys His Thr Leu Arg
Glu Phe Ala Leu Glu Tyr Arg Thr Cys Arg Glu Arg Val Leu Gln Gln
Gln Gln Lys Gln
         35
<210> 166
<211> 36
<212> PRT
<213> Homo sapiens
<400> 166
Ala Thr Tyr Arg Glu Arg Asn Lys Thr Arg Gly Arg Met Ile Thr Glu
Val Gly Ala Leu Pro Gly Leu Ser Leu Asp Cys His Leu Leu Gly Phe
Leu Arg Ser Ser
         35
<210> 167
<211> 38
<212> PRT
<213> Homo sapiens
Gln Leu Thr Leu Leu Ser Pro Asp Arg Glu Val Leu Arg Cys Gly
Trp Gly Ser Pro Gln Gln Pro Leu Cys Pro Ser Ser Ser Glu Gln Arg
                                 25
Ala Arg Pro Gly Arg Cys
         35
<210> 168
<211> 35
<212> PRT
<213> Homo sapiens
<400> 168
Gly Ala Leu Leu Pro Gly Pro Gly Ser Ser Pro Phe Ser Pro Phe Gly
Leu Leu Cys Gln Gly Leu Leu Gln Pro Pro Gly Cys Glu Leu Cys Pro
```

```
Leu Pro Glu
35
```

<210> 169

<211> 702

<212> PRT

<213> Homo sapiens

<400> 169

Gly Thr Ser Lys Tyr Gly Asp Gln His Ser Ala Ala Gly Arg Asn Gly
1 10 15

Lys Pro Lys Val Ile Ala Val Thr Arg Ser Thr Ser Ser Thr Ser Ser 20 25 30

Gly Ser Asn Ser Asn Ala Leu Val Pro Val Ser Trp Lys Arg Pro Gln 35 40 45

Leu Ser Gln Arg Arg Thr Arg Glu Lys Leu Met Asn Val Leu Ser Leu 50 55 60

Cys Gly Pro Glu Ser Gly Leu Pro Lys Asn Pro Ser Val Val Phe Ser 65 70 75 80

Ser Asn Glu Asp Leu Glu Val Gly Asp Gln Gln Thr Ser Leu Ile Ser 85 90 95

Thr Thr Glu Asp Ile Asn Gln Glu Glu Glu Val Ala Val Glu Asp Asn 100 105 110

Ser Ser Glu Gln Gln Phe Gly Val Phe Lys Asp Phe Asp Phe Leu Asp 115 120 125

Val Glu Leu Glu Asp Ala Glu Gly Glu Ser Met Asp Asn Phe Asn Trp 130 135 140

Gly Val Arg Arg Arg Ser Leu Asp Ser Ile Asp Lys Gly Asp Thr Pro 145 150 155 160

Ser Leu Gln Glu Tyr Gln Cys Ser Ser Ser Thr Pro Ser Leu Asn Leu 165 170 175

Thr Asn Gln Glu Asp Thr Asp Glu Ser Ser Glu Glu Glu Ala Ala Leu 180 185 190

Thr Ala Ser Gln Ile Leu Ser Arg Thr Gln Met Leu Asn Ser Asp Ser 195 200 205

Ala Thr Asp Glu Thr Ile Pro Asp His Pro Asp Leu Leu Gln Ser 210 215 220

Glu Asp Ser Thr Gly Ser Ile Thr Thr Glu Glu Val Leu Gln Ile Arg 225 230 235 240

Asp Glu Thr Pro Thr Leu Glu Ala Ser Leu Asp Asn Ala Asn Ser Arg 245 250 255

- Leu Pro Glu Asp Thr Thr Ser Val Leu Lys Glu Glu His Val Thr Thr 260 265 270
- Phe Glu Asp Glu Gly Ser Tyr Ile Ile Gln Glu Gln Glu Ser Leu 275 280 285
- Val Cys Gln Gly Ile Leu Asp Leu Glu Glu Thr Glu Met Pro Glu Pro 290 295 300
- Leu Ala Pro Glu Ser Tyr Pro Glu Ser Val Cys Glu Glu Asp Val Thr 305 310 315 320
- Leu Ala Leu Lys Glu Leu Asp Glu Arg Cys Glu Glu Glu Glu Ala Asp 325 330 335
- Phe Ser Gly Leu Ser Ser Gln Asp Glu Glu Glu Gln Asp Gly Phe Pro 340 345 350
- Glu Val Gln Thr Ser Pro Leu Pro Ser Pro Phe Leu Ser Ala Ile Ile 355 360 365
- Ala Ala Phe Gln Pro Val Ala Tyr Asp Asp Glu Glu Ala Trp Arg 370 375 380
- Cys His Val Asn Gln Met Leu Ser Asp Thr Asp Gly Ser Ser Ala Val 385 390 395 400
- Phe Thr Phe His Val Phe Ser Arg Leu Phe Gln Thr Ile Gln Arg Lys
 405 410 415
- Phe Gly Glu Ile Thr Asn Glu Ala Val Ser Phe Leu Gly Asp Ser Leu \$420\$ \$425\$ \$430\$
- Gln Arg Ile Gly Thr Lys Phe Lys Ser Ser Leu Glu Val Met Met Leu 435 440 445
- Cys Ser Glu Cys Pro Thr Val Phe Val Asp Ala Glu Thr Leu Met Ser 450 460
- Cys Gly Leu Leu Glu Thr Leu Lys Phe Gly Val Leu Glu Leu Gln Glu 465 470 475 480
- His Leu Asp Thr Tyr Asn Val Lys Arg Glu Ala Ala Glu Gln Trp Leu 485 490 495
- Asp Asp Cys Lys Arg Thr Phe Gly Ala Lys Glu Asp Met Tyr Arg Ile 500 505 510
- Asn Thr Asp Ala Gln Glu Leu Glu Leu Cys Arg Arg Leu Tyr Lys Leu 515 520 525
- His Phe Gln Leu Leu Leu Phe Gln Ala Tyr Cys Lys Leu Ile Asn 530 540
- Gln Val Asn Thr Ile Lys Asn Glu Ala Glu Val Ile Asn Met Ser Glu 545 550 560

Glu Leu Ala Gl
n Leu Glu Ser Ile Leu Lys Glu Ala Glu Ser Ala Ser 565
 570 575

Glu Asn Glu Glu Ile Asp Ile Ser Lys Ala Ala Gln Thr Thr Ile Glu
580 585 590

Thr Ala Ile His Ser Leu Ile Glu Thr Leu Lys Asn Lys Glu Phe Ile 595 600 605

Ser Ala Val Ala Gln Val Lys Ala Phe Arg Ser Leu Trp Pro Ser Asp 610 615 620

Ile Phe Gly Ser Cys Glu Asp Asp Pro Val Gln Thr Leu Ile His Ile 625 630 635 640

Tyr Phe His His Gln Thr Leu Gly Gln Thr Gly Ser Phe Ala Val Ile 645 650 655

Gly Ser Asn Leu Asp Met Ser Glu Ala Asn Tyr Lys Leu Met Glu Leu 660 670

Asn Leu Glu Ile Arg Glu Ser Leu Arg Met Val Gln Ser Tyr Gln Leu 675 680 685

Leu Ala Gln Ala Lys Pro Met Gly Asn Met Val Ser Thr Gly 690 695 700

<210> 170

<211> 37

<212> PRT

<213> Homo sapiens

<400> 170

Gly Thr Ser Lys Tyr Gly Asp Gln His Ser Ala Ala Gly Arg Asn Gly
1 10 15

Lys Pro Lys Val Ile Ala Val Thr Arg Ser Thr Ser Ser Ser 20 25 30

Gly Ser Asn Ser Asn 35

<210> 171

<211> 37

<212> PRT

<213> Homo sapiens

<400> 171

Ala Leu Val Pro Val Ser Trp Lys Arg Pro Gln Leu Ser Gln Arg Arg 1 5 10 15

Thr Arg Glu Lys Leu Met Asn Val Leu Ser Leu Cys Gly Pro Glu Ser 20 25 30

Gly Leu Pro Lys Asn

35

```
<210> 172
<211> 37
<212> PRT
<213> Homo sapiens
<400> 172
Pro Ser Val Val Phe Ser Ser Asn Glu Asp Leu Glu Val Gly Asp Gln
Gln Thr Ser Leu Ile Ser Thr Thr Glu Asp Ile Asn Gln Glu Glu Glu
             20
                                 25
Val Ala Val Glu Asp
        35
<210> 173
<211> 37
<212> PRT
<213> Homo sapiens
<400> 173
Asn Ser Ser Glu Gln Gln Phe Gly Val Phe Lys Asp Phe Asp Phe Leu
                 5
                                    10
Asp Val Glu Leu Glu Asp Ala Glu Gly Glu Ser Met Asp Asn Phe Asn
             20
Trp Gly Val Arg Arg
        35
<210> 174
<211> 37
<212> PRT
<213> Homo sapiens
<400> 174
Arg Ser Leu Asp Ser Ile Asp Lys Gly Asp Thr Pro Ser Leu Gln Glu
Tyr Gln Cys Ser Ser Ser Thr Pro Ser Leu Asn Leu Thr Asn Gln Glu
Asp Thr Asp Glu Ser
       35
<210> 175
<211> 37
<212> PRT
<213> Homo sapiens
<400> 175
Ser Glu Glu Glu Ala Ala Leu Thr Ala Ser Gln Ile Leu Ser Arg Thr
```

<211> 37

```
Gln Met Leu Asn Ser Asp Ser Ala Thr Asp Glu Thr Ile Pro Asp His
                                 25
Pro Asp Leu Leu Leu
       35
<210> 176
<211> 37
<212> PRT
<213> Homo sapiens
<400> 176
Gln Ser Glu Asp Ser Thr Gly Ser Ile Thr Thr Glu Glu Val Leu Gln
                                    10
Ile Arg Asp Glu Thr Pro Thr Leu Glu Ala Ser Leu Asp Asn Ala Asn
            20
                                 25
Ser Arg Leu Pro Glu
       35
<210> 177
<211> 37
<212> PRT
<213> Homo sapiens
<400> 177
Asp Thr Thr Ser Val Leu Lys Glu Glu His Val Thr Thr Phe Glu Asp
Glu Gly Ser Tyr Ile Ile Gln Glu Gln Glu Ser Leu Val Cys Gln
Gly Ile Leu Asp Leu
<210> 178
<211> 37
<212> PRT
<213> Homo sapiens
<400> 178
Glu Glu Thr Glu Met Pro Glu Pro Leu Ala Pro Glu Ser Tyr Pro Glu
Ser Val Cys Glu Glu Asp Val Thr Leu Ala Leu Lys Glu Leu Asp Glu
Arg Cys Glu Glu Glu
        35
<210> 179
```

```
<212> PRT
<213> Homo sapiens
<400> 179
Glu Ala Asp Phe Ser Gly Leu Ser Ser Gln Asp Glu Glu Glu Gln Asp
    5
Gly Phe Pro Glu Val Gln Thr Ser Pro Leu Pro Ser Pro Phe Leu Ser
                                25
Ala Ile Ile Ala Ala
       35
<210> 180
<211> 37
<212> PRT
<213> Homo sapiens
<400> 180
Phe Gln Pro Val Ala Tyr Asp Asp Glu Glu Glu Ala Trp Arg Cys His
Val Asn Gln Met Leu Ser Asp Thr Asp Gly Ser Ser Ala Val Phe Thr
Phe His Val Phe Ser
       35
<210> 181
<211> 37
<212> PRT
<213> Homo sapiens
<400> 181
Arg Leu Phe Gln Thr Ile Gln Arg Lys Phe Gly Glu Ile Thr Asn Glu
Ala Val Ser Phe Leu Gly Asp Ser Leu Gln Arg Ile Gly Thr Lys Phe
Lys Ser Ser Leu Glu
    35
<210> 182
<211> 37
<212> PRT
<213> Homo sapiens
<400> 182
Val Met Met Leu Cys Ser Glu Cys Pro Thr Val Phe Val Asp Ala Glu
Thr Leu Met Ser Cys Gly Leu Leu Glu Thr Leu Lys Phe Gly Val Leu
```

```
Glu Leu Gln Glu His
   35
<210> 183
<211> 37
<212> PRT
<213> Homo sapiens
<400> 183
Leu Asp Thr Tyr Asn Val Lys Arg Glu Ala Ala Glu Gln Trp Leu Asp
Asp Cys Lys Arg Thr Phe Gly Ala Lys Glu Asp Met Tyr Arg Ile Asn
Thr Asp Ala Gln Glu
       35
<210> 184
<211> 37
<212> PRT
<213> Homo sapiens
<400> 184
Leu Glu Leu Cys Arg Arg Leu Tyr Lys Leu His Phe Gln Leu Leu
Leu Phe Gln Ala Tyr Cys Lys Leu Ile Asn Gln Val Asn Thr Ile Lys
Asn Glu Ala Glu Val
   35
<210> 185
<211> 37
<212> PRT
<213> Homo sapiens
<400> 185
Ile Asn Met Ser Glu Glu Leu Ala Gln Leu Glu Ser Ile Leu Lys Glu
Ala Glu Ser Ala Ser Glu Asn Glu Glu Ile Asp Ile Ser Lys Ala Ala
Gln Thr Thr Ile Glu
       35
<210> 186
<211> 37
<212> PRT
<213> Homo sapiens
<400> 186
```

Thr Ala Ile His Ser Leu Ile Glu Thr Leu Lys Asn Lys Glu Phe Ile
1 10 15

Ser Ala Val Ala Gln Val Lys Ala Phe Arg Ser Leu Trp Pro Ser Asp 20 25 30

Ile Phe Gly Ser Cys 35

<210> 187

<211> 37

<212> PRT

<213> Homo sapiens

<400> 187

Glu Asp Asp Pro Val Gln Thr Leu Ile His Ile Tyr Phe His His Gln $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$

Thr Leu Gly Gln Thr Gly Ser Phe Ala Val Ile Gly Ser Asn Leu Asp 20 25 30

Met Ser Glu Ala Asn 35

<210> 188

<211> 36

<212> PRT

<213> Homo sapiens

<400> 188

Tyr Lys Leu Met Glu Leu Asn Leu Glu Ile Arg Glu Ser Leu Arg Met
1 5 10 15

Val Gln Ser Tyr Gln Leu Leu Ala Gln Ala Lys Pro Met Gly Asn Met 20 25 30

Val Ser Thr Gly

<210> 189

<211> 703

<212> PRT

<213> Homo sapiens

<400> 189

Gly Thr Ser Lys Tyr Gly Asp Gln His Ser Ala Ala Gly Arg Asn Gly
1 10 15

Lys Pro Lys Val Ile Ala Val Thr Arg Ser Thr Ser Ser Thr Ser Ser

Gly Ser Asn Ser Asn Ala Leu Val Pro Val Ser Trp Lys Arg Pro Gln

Leu Ser Gln Arg Arg Thr Arg Glu Lys Leu Met Asn Val Leu Ser Leu

	50					55					60				
Сув 65	Gly	Pro	Glu	Ser	Gly 70	Leu	Pro	Lys	Asn	Pro 75	Ser	Val	Val	Phe	Ser 80
Ser	Asn	Glu	Asp	Leu 85	Glu	Val	Gly	Asp	Gln 90	Gln	Thr	Ser	Leu	Ile 95	Ser
Thr	Thr	Glu	Asp 100	Ile	Asn	Gln	Glu	Glu 105	Glu	Val	Ala	Val	Glu 110	Asp	Asn
Ser	Ser	Glu 115	Gln	Gln	Phe	Gly	Val 120	Phe	Lys	Asp	Phe	Asp 125	Phe	Leu	Asp
Val	Glu 130	Leu	Glu	Asp	Ala	Glu 135	Gly	Glu	Ser	Met	Asp 140	Asn	Phe	Asn	Trp
Gly 145	Val	Arg	Arg	Arg	Ser 150	Leu	Asp	Ser	Ile	Asp 155	Lys	Gly	Asp	Thr	Pro 160
Ser	Leu	Gln	Glu	Tyr 165	Gln	Cys	Ser	Ser	Ser 170	Thr	Pro	Ser	Leu	Asn 175	Leu
Thr	Asn	Gln	Glu 180	Asp	Thr	Asp	Glu	Ser 185	Ser	Glu	Glu	Glu	Ala 190	Ala	Leu
Thr	Ala	Ser 195	Gln	Ile	Leu	Ser	Arg 200	Thr	Gln	Met	Leu	Asn 205	Ser	Asp	Ser
Ala	Thr 210	Asp	Glu	Thr	Ile	Pro 215	Asp	His	Pro	Asp	Leu 220	Leu	Leu	Gln	Ser
Glu 225	Asp	Ser	Thr	Gly	Ser 230	Ile	Thr	Thr	Glu	Glu 235	Val	Leu	Gln	Ile	Arg 240
Asp	Glu	Thr	Pro	Thr 245	Leu	Glu	Ala	Ser	Leu 250	Asp	Asn	Ala	Asn	Ser 255	Arg
Leu	Pro	Glu	Asp 260	Thr	Thr	Ser	Val	Leu 265	Lys	Glu	Glu	His	Val 270	Thr	Thr
Phe	Glu	Asp 275	Glu	Gly	Ser	Tyr	Ile 280	Ile	Gln	Glu	Gln	Gln 285	Glu	Ser	Leu
Val	Сув 290	Gln	Gly	Ile	Leu	Asp 295	Leu	Glu	Glu	Thr	Glu 300	Met	Pro	Glu	Pro
Leu 305	Ala	Pro	Glu	Ser	Tyr 310	Pro	Glu	Ser	Val	Cys 315	Glu	Glu	Asp	Val	Thr 320
Leu	Ala	Leu	Lys	Glu 325	Leu	Asp	Glu	Arg	Cys 330	Glu	Glu	Glu	Glu	Ala 335	Asp
Phe	Ser	Gly	Leu 340	Ser	Ser	Gln	Asp	Glu 345	Glu	Glu	Gln	Asp	Gly 350	Phe	Pro
Glu	Val	Gln 355	Thr	Ser	Pro	Leu	Pro 360	Ser	Pro	Phe	Leu	Ser 365	Ala	Ile	Ile

- Ala Ala Phe Gln Pro Val Ala Tyr Asp Asp Glu Glu Glu Ala Trp Arg 370 375 380
- Cys His Val Asn Gln Met Leu Ser Asp Thr Asp Gly Ser Ser Ala Val 385 390 395 400
- Phe Thr Phe His Val Phe Ser Arg Leu Phe Gln Thr Ile Gln Arg Lys 405 410 415
- Phe Gly Glu Ile Thr Asn Glu Ala Val Ser Phe Leu Gly Asp Ser Leu 420 425 430
- Gln Arg Ile Gly Thr Lys Phe Lys Ser Ser Leu Glu Val Met Met Leu 435 440 445
- Cys Ser Glu Cys Pro Thr Val Phe Val Asp Ala Glu Thr Leu Met Ser 450 460
- Cys Gly Leu Leu Glu Thr Leu Lys Phe Gly Val Leu Glu Leu Gln Glu 465 470 475 480
- His Leu Asp Thr Tyr Asn Val Lys Arg Glu Ala Ala Glu Gln Trp Leu 485 490 495
- Asp Asp Cys Lys Arg Thr Phe Gly Ala Lys Glu Asp Met Tyr Arg Ile 500 505 510
- Asn Thr Asp Ala Gln Glu Leu Glu Leu Cys Arg Arg Leu Tyr Lys Leu 515 520 525
- His Phe Gln Leu Leu Leu Phe Gln Ala Tyr Cys Lys Leu Ile Asn 530 535 540
- Gln Val Asn Thr Ile Lys Asn Glu Ala Glu Val Ile Asn Met Ser Glu 545 550 555 560
- Glu Leu Ala Gln Leu Glu Ser Ile Leu Lys Glu Ala Glu Ser Ala Ser 565 570 575
- Glu Asn Glu Glu Ile Asp Ile Ser Lys Ala Ala Gln Thr Thr Ile Glu 580 585 590
- Thr Ala Ile His Ser Leu Ile Glu Thr Leu Lys Asn Lys Glu Phe Ile 595 600 605
- Ser Ala Val Ala Gln Val Lys Ala Phe Arg Ser Leu Trp Pro Ser Asp 610 615 620
- Ile Phe Gly Ser Cys Glu Asp Asp Pro Val Gln Thr Leu Ile His Ile 625 630 635 640
- Tyr Phe His His Gln Thr Leu Gly Gln Thr Gly Ser Phe Ala Val Ile 645 650
- Gly Ser Asn Leu Asp Met Ser Glu Ala Asn Tyr Lys Leu Met Glu Leu 660 670

Asn Leu Glu Ile Arg Glu Ser Leu Arg Met Val Gln Ser Tyr Gln Leu 675 680 685

Leu Ala Gln Ala Lys Pro Met Gly Asn Met Val Ser Thr Gly Phe 690 695 700

<210> 190

<211> 645

<212> PRT

<213> Homo sapiens

<400> 190

Met Asn Val Leu Ser Leu Cys Gly Pro Glu Ser Gly Leu Pro Lys Asn 1 5 10 15

Pro Ser Val Val Phe Ser Ser Asn Glu Asp Leu Glu Val Gly Asp Gln
20 25 30

Gln Thr Ser Leu Ile Ser Thr Thr Glu Asp Ile Asn Gln Glu Glu Glu 35

Val Ala Val Glu Asp Asn Ser Ser Glu Gln Gln Phe Gly Val Phe Lys
50 55 60

Asp Phe Asp Phe Leu Asp Val Glu Leu Glu Asp Ala Glu Gly Glu Ser
65 70 75 80

Met Asp Asn Phe Asn Trp Gly Val Arg Arg Arg Ser Leu Asp Ser Ile 85 90 95

Asp Lys Gly Asp Thr Pro Ser Leu Gln Glu Tyr Gln Cys Ser Ser Ser 100 \$105\$

Thr Pro Ser Leu Asn Leu Thr Asn Gln Glu Asp Thr Asp Glu Ser Ser 115 120 125

Glu Glu Glu Ala Ala Leu Thr Ala Ser Gln Ile Leu Ser Arg Thr Gln 130 135 140

Met Leu Asn Ser Asp Ser Ala Thr Asp Glu Thr Ile Pro Asp His Pro 145 150 155 160

Asp Leu Leu Gln Ser Glu Asp Ser Thr Gly Ser Ile Thr Thr Glu 165 170 175

Glu Val Leu Gln Ile Arg Asp Glu Thr Pro Thr Leu Glu Ala Ser Leu 180 185 190

Asp Asn Ala Asn Ser Arg Leu Pro Glu Asp Thr Thr Ser Val Leu Lys 195 200 205

Glu Glu His Val Thr Thr Phe Glu Asp Glu Gly Ser Tyr Ile Ile Glu 210 215 220

Glu Gln Gln Glu Ser Leu Val Cys Gln Gly Ile Leu Asp Leu Glu Glu 225 230 235 240

- Thr Glu Met Pro Glu Pro Leu Ala Pro Glu Ser Tyr Pro Glu Ser Val 245 250 255
- Cys Glu Glu Asp Val Thr Leu Ala Leu Lys Glu Leu Asp Glu Arg Cys 260 265 270
- Glu Glu Glu Ala Asp Phe Ser Gly Leu Ser Ser Gln Asp Glu Glu 275 280 285
- Glu Gln Asp Gly Phe Pro Glu Val Gln Thr Ser Pro Leu Pro Ser Pro 290 295 300
- Phe Leu Ser Ala Ile Ile Ala Ala Phe Gln Pro Val Ala Tyr Asp Asp 305 310 315 320
- Glu Glu Glu Ala Trp Arg Cys His Val Asn Gln Met Leu Ser Asp Thr
- Asp Gly Ser Ser Ala Val Phe Thr Phe His Val Phe Ser Arg Leu Phe 340 345 350
- Gln Thr Ile Gln Arg Lys Phe Gly Glu Ile Thr Asn Glu Ala Val Ser 355 360 365
- Phe Leu Gly Asp Ser Leu Gln Arg Ile Gly Thr Lys Phe Lys Ser Ser 370 375 380
- Leu Glu Val Met Met Leu Cys Ser Glu Cys Pro Thr Val Phe Val Asp 385 390 395 400
- Ala Glu Thr Leu Met Ser Cys Gly Leu Leu Glu Thr Leu Lys Phe Gly 405 410 415
- Val Leu Glu Leu Gln Glu His Leu Asp Thr Tyr Asn Val Lys Arg Glu 420 425 430
- Ala Ala Glu Gln Trp Leu Asp Asp Cys Lys Arg Thr Phe Gly Ala Lys 435 440 445
- Glu Asp Met Tyr Arg Ile Asn Thr Asp Ala Gln Glu Leu Glu Leu Cys 450 460
- Arg Arg Leu Tyr Lys Leu His Phe Gln Leu Leu Leu Leu Phe Gln Ala 465 470 475 480
- Tyr Cys Lys Leu Ile Asn Gln Val Asn Thr Ile Lys Asn Glu Ala Glu
 485 490 495
- Val Ile Asn Met Ser Glu Glu Leu Ala Gln Leu Glu Ser Ile Leu Lys
 500 505 510
- Glu Ala Glu Ser Ala Ser Glu Asn Glu Glu Ile Asp Ile Ser Lys Ala 515 520 525
- Ala Gln Thr Thr Ile Glu Thr Ala Ile His Ser Leu Ile Glu Thr Leu 530 535 540
- Lys Asn Lys Glu Phe Ile Ser Ala Val Ala Gln Val Lys Ala Phe Arg

545					550					555					560
Ser	Leu	Trp	Pro	Ser 565	Asp	Ile	Phe	Gly	Ser 570	Cys	Glu	Asp	Asp	Pro 575	Val
Gln	Thr	Leu	Ile 580	His	Ile	Tyr	Phe	His 585	His	Gln	Thr	Leu	Gly 590	Gln	Thr
Gly	Ser	Phe 595	Ala	Val	Ile	Gly	Ser 600	Asn	Leu	Asp	Met	Ser 605	Glu	Ala	Asn
Tyr	Lys 610	Leu	Met	Glu	Leu	Asn 615	Leu	Glu	Ile	Arg	Glu 620	Ser	Leu	Arg	Met
Val 625	Gln	Ser	Tyr	Gln	Leu 630	Leu	Ala	Gln	Ala	Lys 635	Pro	Met	Gly	Asn	Met 640
Val	Ser	Thr	Gly	Phe											